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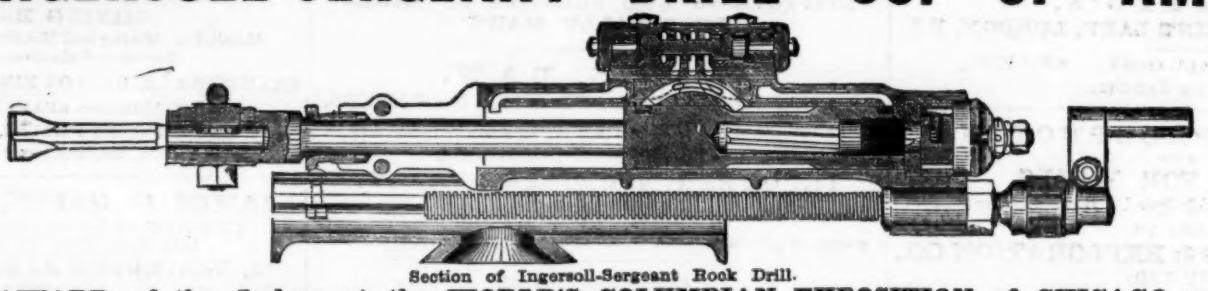

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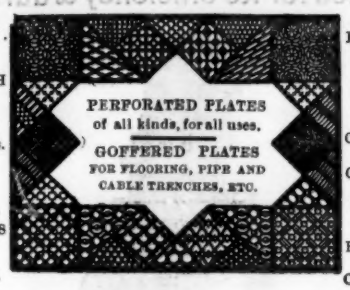

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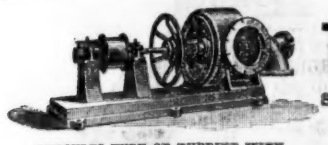

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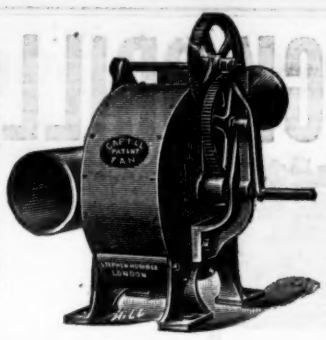

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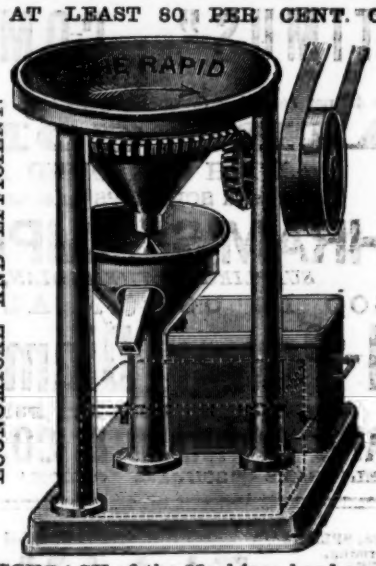

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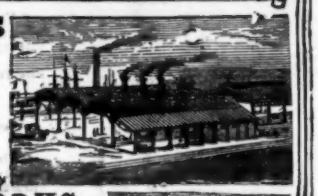

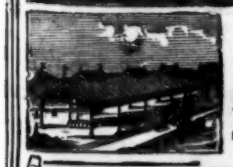

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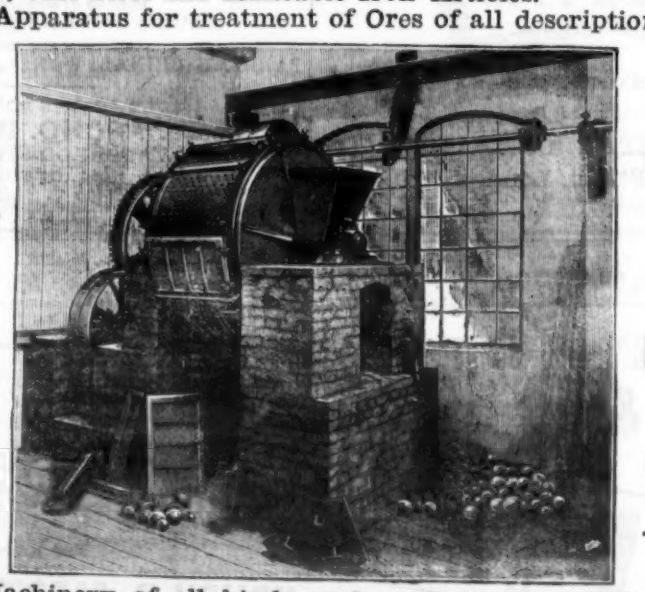

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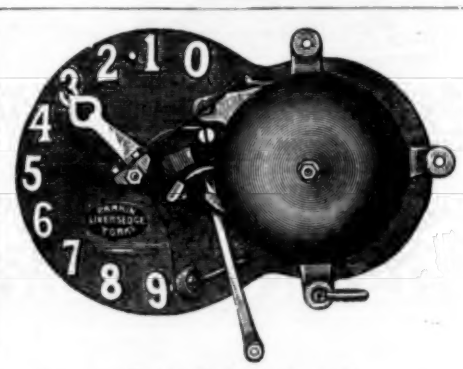

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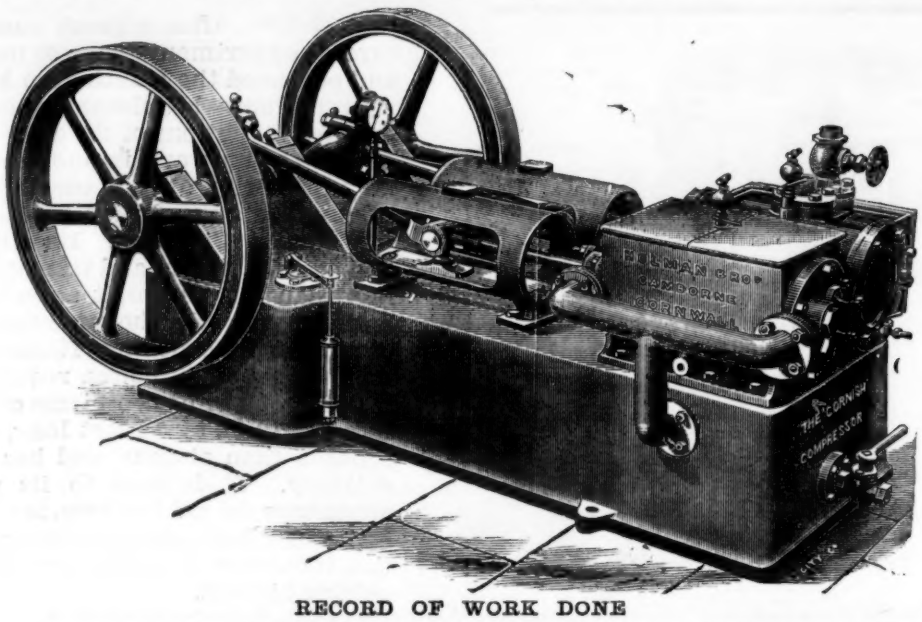

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS,** equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES,** and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

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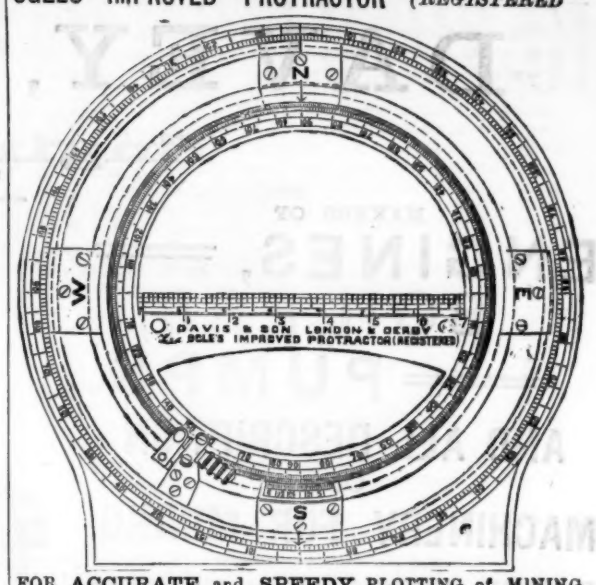

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GOLD MEDAL, Inventions Exhibition, 1885
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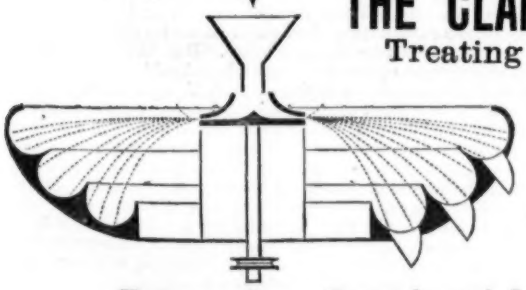
DRY CONCENTRATION.



THE CLARKSON-STANFIELD CONCENTRATOR (LIMITED), are successfully Treating the ores of Gold, Silver, Copper, Lead, Tin, Zinc, Cobalt, &c., &c. of all degrees of fineness, from 30 to the finest meshes by their NEW MACHINERY which may be seen in operation at

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Homogeneous substances, such as Emery, Glass, Sand, Sulphur, Black Lead, &c., graded according to size in one operation.

Terms for Experimental Concentration, and for Supply of Machines on Application.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

4043 Robert Barlow Clarke, 70, Market Street, Manchester.—Improvements in and connected with mechanical feed lubricators.—February 26.

4070 Walter Eyre, 47, Lincolns' Inn Fields, London.—Improvements in mandrels for use in the manufacture of boiler tubes with internal ribs.—February 26.

4083 Edward Brook, 46, Lincolns' Inn Fields, London.—Improvements in and pertaining to steam generator and other furnaces.—February 26.

4094 Sophus Christopher Hauberg, 77, Chancery Lane, London.—Improvements in centrifugal liquid separators.—February 26.

4108 Joseph Alfred Fisher, Dock House, Billiter Street, London.—To provide for gas engines an improved ignition or firing tube.—February 27.

4136 Alexander J. Aird and James Burt, 25, Broughton Street, Salford, Manchester.—Improvements in the construction of agitating and mixing machines.—February 27.

4182 Lloyd Higginbottom, Thomas Mannock, and Edward Hopkinson, Crown Ironworks, West Gorton, Manchester.—Improvements in overhead electric travelling cranes.—February 27.

4188 William Humphrey Wheatley, 40, Chancery Lane, London.—A new and improved piston rod packing and process of manufacturing the same.—February 27.

4196 Paul le Boulenger, 45, Southampton Buildings, Chancery Lane, London.—Improvements in and relating to speed indicating and recording apparatus.—February 27.

4202 George Lander Thiel, 45, Southampton Buildings, Chancery Lane, London.—Improvements in apparatus for controlling the admission of air to furnaces.—February 28.

4227 Thomas Paschal Borden and Fred. Lamplough, 15, Cannon Street, London.—Improvements in steam and other vapour and liquid traps.—February 28.

4231 David Cook, 30, Lancaster Park, Richmond, Surrey.—Improvements in steam turbines.—February 28.

4233 Oliver Imray, 28, Southampton Buildings, Chancery Lane, London.—Process for the manufacture of combustible gas.—February 28.

4236 Francis William Crossley and James Atkinson Openshaw, Manchester.—Improvements in internal combustion motors.—March 1.

4293 Otto Lindner, 148, Rue de Mérode, Brussels.—Driving and like chains.—March 1.

4347 Frank Slavin and Silvestro Pollastrini, 76, Chancery Lane, London.—Improvements in danger signalling apparatus for use in Mines.—March 1.

SPECIFICATIONS PUBLISHED.

3945, Eberhardt, gear cutting engines, 1893; 6985, Kitchen, hot water and steam boilers, 1893; 7064, Bellamy, gas, &c., engines, 1893; 7426, Dawson, gas engines, 1893; 20,827, Wade, engine packing, 1893; 21,362, Dodson, pianofortes, 1893; 23,917, Haddon, harps, &c., 1893; 24,945, Fisch, steam boiler furnaces, 1893.

The above specifications published may be had of Messrs. Rayner and Company, 37, Chancery Lane, London, at 10d. each including postage.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Water Supply Works, March 19 (*Ware, Herts*).—For providing and laying about 6100 yards of 4 inch, 3 inch, and 2 inch, cast-iron pipes, with all necessary fittings, for the supply of water to the villages of Bourbourne and Wormley, Herts, within their district, for the Ware Union Rural Sanitary Authority. Plans and specifications at the offices of Messrs. Bailey Denton, Son, and North, Palace Chambers, Westminster. Sealed tenders to be sent to Mr. Geo. H. Gisby, clerk, Union Offices, Ware.

Girders, March 20 (*Brighton*).—For the supplying and delivering on rail at Brighton Railway Station, for the Brighton and Rottingdean Seashore Electric Tramroad Company, of steel lattice girders, rolled joists, cover plates, bolts, rivets, tie-rods, coupling-boxes, and rail struts, two traverse tables and creosoted deal rail packings. Drawings to be seen and specifications obtained at the offices of Mr. R. St. George Moore, A.M.I.C.E., 17, Victoria Street, Westminster. Tenders will be received by Mr. Magnus Volk, acting secretary, Madeira Road, Brighton.

Railway Stores, March 21 (*Dublin*).—For the supply of various railway stores for 18 months from April 1, for the Dublin, Wicklow, and Wexford Railway Company. Specifications with forms of tender of Mr. H. W. Mansell, secretary, Westland Row Terminus, Dublin.

Bridges, March 23 (*Winchester*).—For the reconstruction in steel and brickwork, of four arched bridges, over the London and Basingstoke Canal between Fleet and Winchfield. Particulars of Mr. James Robinson, 13, Southgate Street, Winchester.

Sinking Pits (*Aberbeeg, Mon.*).—For the sinking of two pits near Aberbeeg, Monmouthshire, to the steam coal measures. For particulars apply to Messrs. John Lancaster and Co., (Limited), Blaina, Mon.

Sluice Valve, (*Manchester*).—For the supply of one 24-inch sluice valve for the Waterworks Committee. Plans and specifications on application to Mr. T. H. G. Berrey, Waterworks office, Town Hall, Manchester.

Stores, (*Glasgow*).—For the supply of stores for one year from April 1, for the Pumpherston Oil Company (Limited), 24, St. Vincent Place, Glasgow. Specifications and forms of tender on application at the office.

Construction of Railway (*Madrid*).—The Secretary of State for Foreign Affairs has received from Her Majesty's Ambassador at Madrid, a copy of a royal decree, inviting tenders for the construction of a railway from Manila to Taal by Calamba and Batangas. The decree can be seen at the Foreign Office, S.W., on week-days between 11 and 6.

Driving Stone Drift, (*Ashington*).—For driving a stone drift 150 yards long. For full particulars apply to the Manager, Broomhill Colliery, Ashington.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

T.—We are likewise surprised at not receiving any answer from the directors or secretary. The charges are certainly grave, and no doubt those concerned think silence is a more safe and prudent answer from their point of view.

H. G.—We think the shares will go up.

L. W.—The dividend will, we are given to understand, be declared the first week in April.

. R.—Many thanks for circular.

W. J.—You have not complied with our rules.

Y. Z.—The firm is not well known.

L. S. D.—The property will probably improve.

J. G.—We do not advise you to invest in the mine.

J. F.—There is no need for any uneasiness. It is only a market movement.

B. G.—We should be disposed to convert No. 3.

INVESTOR.—The quotations you refer to cannot always be relied upon.

TUTOR.—It would be preferable rather to sell than buy.

J. L. P.—The first meeting was held on Monday last.

M. H. S.—The address of the company is 54, Coleman Street, E.C.

LUX.—1. Basalt is a mixture of augite and felspar with some iron; it is either dark green or black, occurring chiefly in large crystals. 2.—Tosing or tossing is the term used for shaking or tossing the wet tin in a sieve.

DEAFNESS AND NOISES IN THE HEAD cured at the patient's home. This Illustrated Edition also treats on the cure of Catarrh, Bronchitis, Asthma, Extreme Stoutness, Indigestion, Dyspepsia, Rheumatism, by Medico-Electricity.—4d. G. B. BRIGHT, Publisher, 8, Tavistock Place, London, W.C.—[ADVT.

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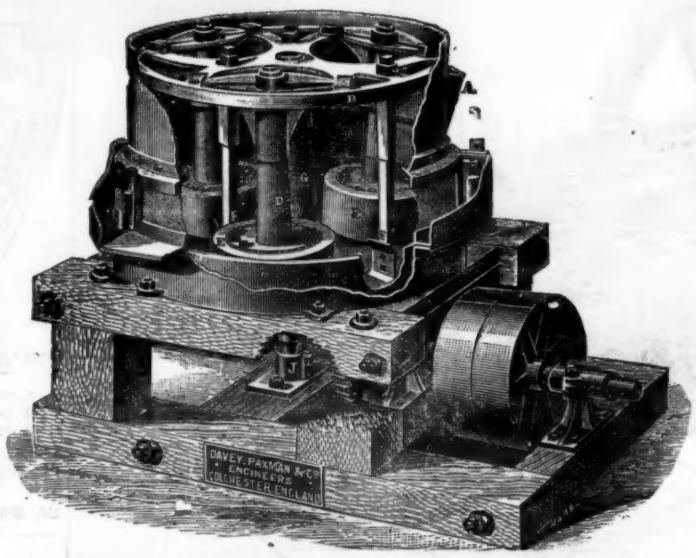
ENGINES, BOILERS, PUMPS.

AND ALL DESCRIPTION OF MACHINERY FOR MINING.

DAVEY, PAXMAN & Co., are SOLE Licensees and Manufacturers of the Huntington Patent Centrifugal Roller Quartz Mill for the whole World, excepting the United States of America, Mexico, and Australasia.

Telegraphic Address:

"PAXMAN, COLCHESTER."



Huntington's Patent Centrifugal Roller Quartz Mill for fine pulverizing in Concentration.

LONDON OFFICE
78 [late 139], QUEEN VICTORIA STREET.

D. P. & Co., after a great number of careful experiments have so improved and perfected the Huntington Mill that it must now be classed among the greatest inventions of the age. The excellence of its work is undoubted, and its superiority over Stamp Mills will soon cause a revolution in its favour for Quartz Crushing. Its first cost, and cost for freight and transit is much less than for stamps, it absorbs about half the power for the same output, and is continually crushing. It can be fixed and started in 12 hours, requiring for foundations only two pieces of timber 12 in. by 12 in. by 14 feet long, is more reliable than stamps, and has perfect delivery. It is used to its greatest advantage on gold quartz, for, because of its excellent amalgamating properties, it catches about 75 per cent. of the gold put into it.

Full Particulars on Application to

DAVEY, PAXMAN & Co.,
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SPECIAL CORRESPONDENCE:

COLONIAL AND FOREIGN.

MINING IN SPAIN (ASTURIAS).

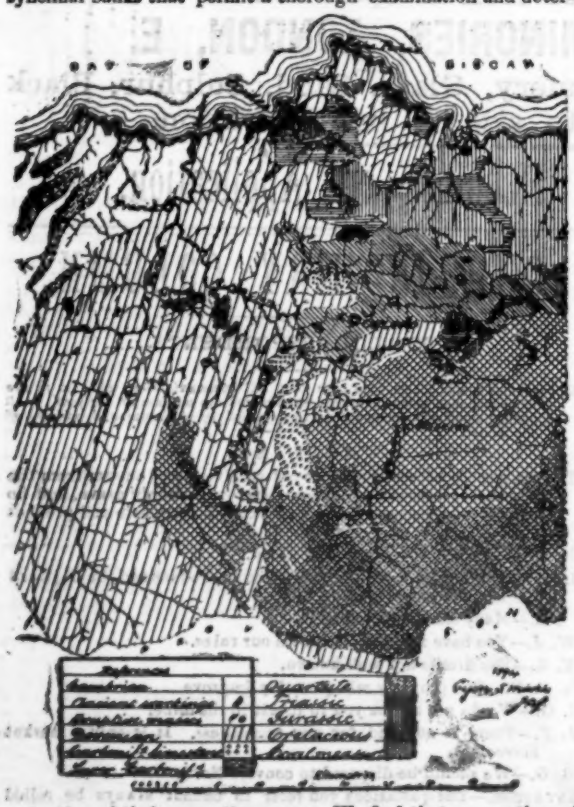
THE SILURIAN FORMATION.

(FROM OUR OWN CORRESPONDENT).

Gijon, *6th March*, 1894.

As up to the present only the Cambrian system has been dealt with, and its characteristic fossils named in these articles, it must not be inferred that the Silurian is absent.

In journeying along the coast from Rivadeo to Cape Peñas, we find the Silurian in its distinctive groups abutting on the sea at Luarca, Capes Busto, Vidio, and Peñas, forming immense anti and synclinal banks that permit a thorough examination and determination of their respective ages. We find that no portion of the great Silurian epoch is absent, and, therefore, we can classify them as follows:—



Primordial	=	Cape Busto.
Middle	=	Luarca.
Upper	=	Cape Peñas.

Without entering into details, other than those of the principal strata forming each zone, they can be tabulated as follows:—

Primordial and Lower.—This has for its base a thin concordant bed of conglomerate, overlying this a thin bed of black slatey schist, then one of white sandstone, followed by a bed of iron ore; then one of black lustrous slate, another of white sandstone, another of grey sandstone, and then one of sandstone alternating in banks of 15 to 20 feet, with thin beds of violet-coloured quartzite. Their approximate thicknesses are as follows:—

	Feet.		Feet.
Conglomerate	6	White sandstone	60
Black slatey schist	10	Grey sandstone	120
White sandstone	130	Psammite with quartzite layers	180
Iron ore	9		
Black lustrous slate	60		

As noted, there is the bed of iron ore underlying the black lustrous slate; this is common to the series, and has been worked at a place called Sabugo. It is low in iron percentage. This bed is one of the features of the formation in this country as well as in France. As a proof thereof, we may refer to the strata of the same epoch in the west of Brittany, where this bed of iron ore also exists. This must not be confounded with the veins of magnetic iron ore underlying the conglomerate first mentioned, which are to-day worked extensively at Porcia, yielding mineral having a percentage of from 45 to 58 metallic iron. The output of about 30,000 tons per annum is delivered exclusively to the Mieres and Felguera Iron Works in this province, and is reported to be a good smelting ore.

The general fauna of the sandstones are Scolithes, and of the slates, Lingulella Davisii, L. Herberti, Orthoceras, and Asaphus Glabratus.

Middle Silurian.—Overlying the above is the Luarca group, rich in fauna, and comprised of the following, from the bottom upwards:—A bluish quartzite bed, a micaceous brecchioid schist, black schists, with nodular quartzite, black schists, brown ferruginous schists, with interlaying veins of white quartz, and the Luarca bluish black slates. Their thicknesses are as follows:—

Bluish quartzite bed	45 feet.
Micaceous brecchioid schist	15 ,,
Black schist, with quartzite	30 ,,
Black schists	30 ,,
Brown ferruginous schists	30 ,,
Luarca slates	320 ,,

This last bed is extensively worked for local uses, but in a very original manner, the tools used being simply the pick and hammer, and there is no regularity attempted in the thicknesses of the slates, nor in their sizing, and the flags taken out are used rough and without any regular form.

This bed is worthy of attention, as there is a sufficient market in the country for a large output, if the working be carried out with regularity, with proper tools and machinery, and in the way it is done in other countries.

The equivalent of this bed is worked extensively at Angers (France) with good results, and the resemblance between both is confimed by the similar fauna. This is comprised of the following:—

Dalmanites Phillipsi.
Calymene Tristani.
Orthis exornata.
Asaphus glabratus.

Upper Silurian.—Overlying the above are concordant analogous black limestone schists, alternating with schists and green quartzite having thin layers of nodular limestone. These layers gradually change to conglomerates, formed of quartz and feldspar, with mica, and on the east are cut off by a fault, meeting the Devonian in discordance. Their thickness, from the Luarca group to the conglomerate, is about 1600 feet, and the fauna met with is the following:—

Illænus Hispanicus,
Bellerophon bilobatus,
Endoceras duplex,
and Encrinus.

The formation of Capes Busto and Vidio belongs exclusively to the Lower Silurian, that of Luarca to the Middle, and that of Cape Peñas has the three series in succession, the eastern portion being the oldest.

The mineralogical features of the Silurian in Asturias are very meagre; no minerals of commercial value have been met with, except iron, and the slate beds could certainly be successfully worked, and so far as researches have been made by the writer amongst the lower quartzite beds, neither gold nor lead have been discovered. The similar beds in Wales yielded gold to the Romans at Gogofau, and lead ore in Carmarthenshire. More extensive researches here may lay bare the like results, although it does not seem to be very probable.

Having roughly reviewed the lower series of the palæozoic existing in this province, we will, in our next article, continue with general characteristics of the next succeeding stage, which is also well developed here.

OUR SOUTH AUSTRALIAN LETTER.

Still searching for gold.—More energy than reward. Western Australia absorbing all the capital.

(FROM OUR OWN CORRESPONDENT.)

The search for gold is being still prosecuted in South Australia, and probably with more energy than ever; but the results so far are scarcely commensurate with the expenditure of capital and labour—yet there are a few localities which promise fairly well, provided a little more capital and labour are expended in their development. One of our latest gold fields of any importance (Angipena) is practically almost abandoned until the return of the rainy season shall ensure a better supply of water—say in three or four months hence. But little seems to be doing at present to prove the latest alluvial gold field, discovered by our Government Geologist, Mr. H. Y. Lyell Brown, F.G.S. It is 630 miles north of Adelaide, and only 10 miles from the railway line at Warrina. Mr. Brown considers a large extent of country would at least return fair wages to steady diggers. Unlike so many of the gold fields of West Australia, at Warrina there is abundance of water for washing out the gold. It was on this field the diamond was found, and it is said a few men have gone up with the view of searching for the gems. I have frequently mentioned our north-eastern country as very promising for gold; including Waukaringa, Teetulpa, Westward Ho, Wadnaminga, Bimbowrie, Boolcoomata, Mingary, &c., and additional attention is being directed to it in consequence of recent discoveries and developments. The Virginia Mine, one of the oldest and most successful at Wadnaminga, is employing the cyanide process with marked success. Some excellent stone, showing gold freely, has lately been brought down from Mingary; and a new company is just being formed to work 80 acres of ground in the same district, from which a return of 1 ounce of gold to the ton of stone is confidently relied on. This is called the Perry Hummock Gold Mining Company; there is machinery close at hand, and more is about to be sent up.

Then, in the south, the English Sluicing Company have about 60 men employed in excavating and constructing the big dam required for their operations. It is hoped and believed that this undertaking will prove a success. The country in the neighbourhood has long been known to be auriferous, but hitherto the capital available has not been sufficient to provide the necessary machinery to cope with the influx of water. In the present case it is believed sufficient capital will be forthcoming, but the case is altered in another respect, for, so far from wishing to get rid of the water, its very superabundance will be made useful in winning the gold from the soil.

However, the great rich new gold fields of Western Australia are absorbing all the capital that can by any kind of financial pressure be diverted in that direction. It is like our "Northern Territory" boom over again; and men will not learn wisdom by experience. While there are undoubtedly several genuine and wonderfully rich gold reefs at Coolgardie and on the Murchison, many that have been taken up and companies formed to work them are unlikely ever to pay dividends. If people close at hand find it necessary to exercise the greatest caution as to what they invest their money in, how much more important must it be for people in England to be extra cautious lest they be taken in by any of the numerous "Wild Cat" mines which spring up like mushrooms at such times as these.

My object in publishing my little work on the mines of South Australia more than 30 years ago was primarily to give a faithful and correct description of our mines at that time, and to warn English speculators against being taken in by many that were being offered for sale on the London market, and which never could be worked at a profit. I have been urged to go to West Australia, but have hitherto considered the risks too great to be worth encountering for a problematic gain. No doubt by degrees the risks will be diminished, and possibly the chances of success at the same time.

J. B. Austin.

THE JOPLIN ZINC MINING DISTRICT.

BY HAMILTON S. WICKS.

[FROM THE *Engineering Magazine**.]

IT has been said of the State of Missouri that, if walled in so as to prevent all communication with the outside world, she would be able to exist independently from the production of her own soil and mines. The State is, indeed, a nation in itself, when one considers the variety and amplitude of its resources. The soil and climate are most favourable, the natural transportion facilities are unsurpassed, and valuable ores, coal, building stones, and clays abound. The annual value of surplus commodities produced within the State, and marketed by rail or river, exceeds $125,000,000, as shown by the returns of the transportation companies. Among these surplus commodities the item of zinc deserves special mention, for the reason that the State is now producing at the rate of fully two-thirds of the yield of the whole country, and more than one-seventh of the world's production. The Missouri product of spelter in 1893 reached 53,636 tons (of 20,000 lbs.), while the total production of the United States was 80,454 tons. Nearly all of Missouri's yield of zinc comes from the Joplin district, in the extreme south-western portion of the State. The zinc fields extend into south-eastern Kansas, and embrace an area of 60 by 30 miles; yet the great bulk of the production comes from a rich district within a radius of 10 miles from the City of Joplin as a centre. The spelter turned out of the furnaces of Illinois, Missouri, and Kansas all comes from the ores of the Joplin district, while the spelter from furnaces in the east and south is made from other ores.

The discovery of zinc blende in this region was made about 23 years ago, in connection with the lead mines opened by Moffet and Sargeant in a creek bottom now embraced within the limits of the City of Joplin. From the beginning the production has increased steadily, and although the crude methods of mining and treating the ores still prevail to a great extent, they are in many instances being supplanted by modern appliances, and the prospective importance of the region is such that the attention of the whole world interested in zinc and zinc mining has been forced to it. This region may seem very remote and inaccessible to the people of the eastern States and of Europe, but it will appear less so when it is stated that the centre of the district is traversed by four important lines of railway—the Missouri Pacific, the Atchison, Topeka, and Santa Fé, the Kansas City, Pittsburgh, and Gulf, and the Kansas City, Fort Scott, and Memphis—and that the population, which has been attracted to this section, is supplied with most of the conveniences of modern civilisation. The City of Joplin is barely 23 hours from Chicago, and only 14 hours from St. Louis.

The entrance to this zinc region is made abruptly at Webb City, Missouri, and Galena, Kansas—the outlying portals to the Joplin district. Up to the very moment of entering either of these camps there is no suggestion of mines in the whole landscape. There are no mountains here, the Ozarks being many miles further east. Even the foot hills begin in the adjoining county of Lawrence, in Missouri. The country here is gently undulating, and well cultivated fields of grain, interspersed with patches of timber, conceal the rich deposits of mineral. At Webb City and Galena, however, all is changed as if by magic, and the rough, coarse underside is exposed. The view presented to the traveller on every side is of innumerable piles of white flint rock of pyramidal shape, varying in height from 10 to 50 feet. Above, around, and among these piles extend long lines of wooden "flumes," while towering above the whole is an interminable array of shaft houses, hoister-derricks, and smokestacks. It is altogether the liveliest picture presented by any mining camp outside the silver and gold regions of the Rocky Mountains. A closer inspection of this chaotic assemblage of flint dump piles will reveal behind every heap a shaft sunk into the earth, from which the crude ore with the gangue rock is being hoisted to the surface—in some cases with the aid of steam or electricity, and in others by the original method of operation by horse power.

The first car load of this material was tested at the zinc works at La Salle, Illinois, where it was found to be zinc ore of a high grade. But the 20 tons embraced in this shipment returned only $15 net, or 75 cents per ton. Shortly after, $3 per ton was offered, with an early advance to $7 or $8 per ton. A record of the amounts sold from the Joplin district, and the prices paid during the period between the years 1873 and 1893, has just been compiled by J. R. Holibaugh, M.E., from which it appears that 960 tons of zinc ore were sold during 1873, at an average price of $9 per ton, bringing in a total of $8640. The rate of output and the proceeds per ton increased steadily during the next ten years, the figures for 1883 being 52,200 tons at an average price of $16·90, or a total of $882,218. During the past 10 years the same steady increase in the amount and value of ore has been recorded, with some fluctuation recently, owing to the financial stringency prevailing throughout the country. The production for 1893 reached 134,090 tons of ore, at an average price of £19·25, or a total of $2,581,232. The total output for the 21 years has aggregated 1,265,119 tons, representing a value of $26,781,580. It is fair to assume that with the return of prosperous business conditions generally, and with the new uses for zinc in commerce which now seem near of realisation, the production will be very greatly augmented in this district during the next decade.

The deposits of zinc ore in the Joplin district occur in chambers apparently along subterranean waterways, at a depth averaging from 60 to 170 feet, as at present mined. But millions of dollars' worth have been taken out at a shallower depth, and it is expected that much more will be mined at a greater depth. The ore is found in conjunction with broken-up flint rock, to which it is cemented or through which it is disseminated. The country rock is Keokuk limestone. Geologically, the district is sub-carboniferous. Deposits of lead are found nearer the surface and the zinc underneath, although more frequently the ores are mingled indiscriminately in a conglomerate mass of limestone, chert rock, dolomite slate, pyrites, shales, and calcite.

The system of developing lead and zinc mines in Missouri is an outgrowth from the necessities of the situation. An old miner once said to me: "This country has been built up by ignorance and poverty; ignorance brought us here, and poverty kept us here." There was little capital at first, and less machinery, but an abundance of muscle and brawn, so that the lease and royalty system early found favour. The system is founded on the supposition that a man's time here is worth nothing unless he strikes "jack"—the local name for zinc ore—and then it is worth exactly what the "jack" is worth, after deducting all expenses and paying the royalty. The landowner leases his land, commonly in 40 acre tracts, to a company or an individual, on a royalty from 10 to 22½ per cent. of the value of the zinc ores mined, and 20 to 40 per cent. of the value of the lead ores mined. These mining leases run usually for 10 years. A shaft is sunk for ore, and when it is found in paying quantity, one of the prospecting shafts is put down to a sufficient depth to drain the property. The miner hoists, crushes, and washes his ore on the ground, and sells it to agents of various smelters located in different parts of the country. Money for all ores passes through the hands of the landowners. They retain the royalty due to themselves, and the miner receives the balance, out of which he pays all the expenses of mining, crushing, cleaning and hauling. The system of sub-leasing small parcels of land to actual miners prevails to a large extent. Parties who have leased 40 acres or more lay off the land into miners' lots 200 feet square, which they sub-lease to actual miners on a royalty of 20 per cent. or more. When a miner is not successful in finding paying ore or when, owing to the want of capital to provide proper machinery, the ores are too poor to be profitably hoisted and cleaned by hand, he stops work and forfeits his lot—usually at the expiration of 10 days. Many shafts that are sunk for ore prove a disappointment. Drill holes are frequently put down that strike nothing but lime and flint. Even some that indicate ore fail to show any when the shaft is sunk. There are failures and successes in zinc mining as in every other kind of business. Much depends on the exercise of good, practical, common sense.

These mining leases compel the miners to work continuously, and to crib and timber in good, workmanlike manner. Some of the miners, endowed with more business sagacity than others, have become able to invest in machinery to hoist and dress their ore, and these have in time become capitalists with fortunes of from $50,000 to $200,000. Still others have become very wealthy, owning large tracts of land and profitable mines, the builders of handsome business houses in Joplin and neighbouring towns, and the possessors of handsome residences.

At Galena, Kansas, the school board erected a handsome building from the 10 per cent. royalty received from mining on one of the school lots, and a church there pays the pastor's salary and keeps the church in repair from the royalty from mining on the church's ground. Shaft No. 1 on the Allen land, near Joplin, has produced over $100,000. The Richland Mining Company have extracted from two lots $109,144. The Ealerland (40 acres) of Carterville has yielded fully $400,000. The Perry 40 has yielded since June, 1892, $76,196. The production of the Tracy Mines aggregates $1,000,000. The pump shaft of the Cohinore Mine, within the limits of Joplin, has averaged 200 tons of rough ore per week for the past two years. The two celebrated Poundstone lots in Carterville have turned out over $750,000 worth of ore, and the ore is not yet exhausted. The Southside Mines of galena have yielded over $2,000,000, and the Center Creek Mines have yielded over $4,000,000. This list might be extended to a great length.

Three miles south-east of Joplin in September, 1891, the Rex Mining and Smelting Company put down a drill on their "thousand acre tract," striking zinc at a depth of 45 feet. Other drill holes were sunk in quick succession, with the result that there was a rush of outside miners anxious to make leases at a royalty of 20 per cent. The output of ore increased steadily until "high-water mark" was reached during the week ending November 25, 1893, when the product was 864,030 lbs. of zinc blende and 36,290 lbs. of lead. The entire production of this tract which, by the way, was mined from less than a 100 acres of ground had reached at the date named more than 10,500,000 lbs. of zinc blende, and 1,750,000 lbs. of lead, selling altogether for $400,000.

A 30 acre tract of land located in the suburbs of Webb City, and known as "Sucker Flat," is said to have derived its name from the Hon. John W. Noble, the secretary of the interior in President Harrison's cabinet, who was the supposed "sucker" in the case. In 1888 some over-shrewd parties induced Mr. Noble, then an attorney in St. Louis, to pay $500 for four acres, under the representation that it was good mineral land. As soon as the money was paid the parties interested, with a general guffaw, designated the property as "Sucker Flat." Soon the original owners attempted to recover the land by paying double the price for it, but the laugh was now on them, while Mr. Noble came to be regarded as unusually keen at a bargain. As prospecting continued to reveal the character of that section he was offered $12,000 for his little purchase, but he has already collected much more than that in royalties from the ores mined from his four acres, which continue to be large producers. The total production for what is still called "Sucker Flat," including the 10 acres of the Center Creek Mining Company, reaches to date $1,250,000.

Not far from Joplin is a 20 acre tract of ground which four years ago was practically unknown to miners, and the owner, a lady in an Indiana village, doubtless would have accepted $10 an acre for it. Zinc ore was accidently discovered on this tract in 1890, and in three years the production had aggregated $300,000. The picture entitled "Sacking Ore for European Shipment" represents a view on Mrs. Allen's land when a shipment was being made to Messrs. Vivian and Son, at Swansea, Wales, of 1000 tons of zinc ore, assaying 60 per cent. and better. The price paid for the ore averaged $24 per ton net to the producer.

A visitor to one of the zinc mines in this region may be invited to go down a shaft offering nothing but a dirty tub as a means of descent. Into this one foot is thrust, while the other is used to guide the tub, to keep it from catching on the timbers which line the shaft. At a depth of say 100 feet the tub comes to a stop at the mouth of the drift in which miners are at work extracting ore. Below this point in the shaft is the sump, which, until the visitor's eyes adjust themselves to the darkness, may be imagined to be bottomless, though only 10 or 15 feet in depth. Once in the low and narrow drift one walks as much as possible upon the rails of a little tramway, which conveys the ore from the head of the drift to the shaft. The passage way is usually dripping and muddy, and one needs the protection of a rubber coat and boots which may be borrowed from an accomodating miner. The drifts of the mines in this region extend from 100 to 500 feet, and one soon reaches the end where the brawny miners are working with pick and shovel. As the lights are held close to the wall of the drift, it does not require an expert to detect the glittering crystals of zinc blende and lead, intermingled with the flint rock and the limestone. The theory of geologists that the zinc blende was deposited by metalliferous waters coming up through crevices and veins, and spreading out through these beds of broken flint and lime, seems verified by the fact that miners' tools left in old mines have been found long afterwards covered with zinc crystals, formed from the waters that have dripped on them. Analyses of water here have shown 13 grains of zinc per gallon of 231 cubic inches.

As before intimated, the primitive methods of hoisting the ores do not prevail in all the shafts; nor does the hand jig serve in all cases for handling the ore after it reaches the surface, although it is still largely in use. The hand jig, as shown in one of the engravings, consist of a wooden plank box, 6 feet square and 3 feet high, which is nearly filled with water. Into this is hung a sieve box, 2 by 5 feet, and 8 inches deep, to which is attached a pole about 16 feet long. The miner, seizing the end of this pole and raising his hands as high as possible above his head, jumps up and down rapidly, giving a sharp, jerky motion to the pole, thus agitating violently the contents of the sieve. The sieve is filled with crude ore direct from the mine after it has passed through a simple Blake crusher and a pair of Cornish rolls. The process of jigging causes the heavy ore to settle to the bottom of the sieve box, when the lighter ore is shovelled off to the waste pile. One good man operating a cleaning jig will be able to turn out 1½ ton of clean ore in a shift of nine hours.

Of late several steam concentrating plants have been erected. The ore is run by an elevated tramway directly from the mining shaft into the mill, where it is dumped upon a large platform and at once shovelled into the crusher, only the larger pieces of chert rock being culled from the general mass. Practically everything hoisted goes through the crusher and Cornish rolls without previous treatment. From the crusher and rolls the crushed stuff is conveyed to a revolving screen and thence to the steam jigs, which consist usually of five "roughers" and six "cleaners." The principle of operation of the steam jigs is the same as that of the hand jigs. The rough ore crushed and screened is made to flow with a sufficient volume of water over the jig sieves, which are rapidly agitated by plungers attached to an eccentric shaft operated by steam power. The heavy ore is carried to the bottom by gravity, while the light stuff remaining on top is washed off into the "tailings." These jig boxes are tapped at the bottom at intervals, and the cleaned ore taken to the bins. The common concentrating plant of this region, while running on 10 per cent. "dirt," will clean 75 tons in two 10 hour shifts, placing 7½ tons of cleaned ore in the bin. These plants cost about $10,000, and the cost of operation does not exceed $30 a day. The rough ore from the mines will average about 10 per cent. of zinc-blende throughout the district, although the dirt from many mines yield fully 25 per cent. The assayed value of metallic zinc in this ore runs from 57 to 62 per cent. Of this metallic content 80 per cent. is saved by smelting in the ordinary Belgian furnace. The cost of mining will average very nearly $10 per ton throughout the district. The cost of smelting varies from $8 to $10 per ton. When the zinc ore has been smelted it enters the market as spelter, containing on an average less than 2 per cent. of foreign substance.

The mining of zinc as practised in the Joplin district is a most fascinating business. The results are so immediate and so apparent that the most inexperienced person can readily comprehend them. The slight depth at which ore is struck, and the simple methods which can be made available, mark a great contrast when measured by the deep mining of Nevada and Colorado, with their ponderous pumps and crushers, and complicated stamp mills and concentrating machinery. Not only is the return very great, compared to the amount of effort expended, but the result is permanent, the output of a given shaft lasting, perhaps, for years. Zinc mining is an industry with a yield as certain and steady as the corn or wheat crop, with the advantage that a new crop is gathered weekly instead of once a year, and that it is practically in shape of actual money injected into the channels of commerce in this vicinity. It is so nearly like getting something for nothing as to afford a fascination—or, in colloquial phrase, a "mineral fever"—which will catch a millionaire as quickly as it will a poor man.

The principal use which has been found in America has been for galvanising iron as a protection against rust. Its utility in this connection is so manifest that it is used to galvanise not only all sorts of architectural ironwork, but also barb wire, which it renders threefold more lasting. It is also largely used in manufacturing brass. The increasing use of electricity has increased the consumption of zinc in a large degree. It is used in desilverising processes, in lithography, and for glazing paper. It is used in the making of domestic utensils, toys, buttons, packing cases, stamped work, refrigerators, for sheeting vessels, and a multitude of other purposes. In Europe zinc find its most general consumption as a roofing material, for which it is especially adapted. It would seem an easy matter to finds favour for zinc for this purpose in the United States.

* This article was accompanied by illustrations, which, of course, we do not reproduce.

A GREAT FORGING PRESS.—After the annual meeting of the shareholders of Messrs. Vickers, Sons, and Company, River Don Works, Sheffield, on the 22nd ult., the shareholders were invited to see the working of the great forging press, which is 8000 tons. An ingot, weighing 65 tons, was taken from the furnace and conveyed to the press, under which it was swiftly and silently squeezed to the required proportions. It will ultimately form one of the plates for the Russian warship, *Three Saints*, and when finished will be 18 inches thick. The shareholders also witnessed the rolling of a plate for a Danish battleship. The great machinery and accessory appliances, which have been specially constructed for the production of all steel armour, worked with wonderful ease and absence of noise. At one time the rolling of an armour plate, or its manipulation under the hammer, required a small army of shouting attendants. Now, with the hydraulic forge and skilful contrivances to turn the huge masses of red hot metal, very few hands are needed, and the biggest ingots are manipulated with the utmost ease and an entire absence of fuss.

THE AFFECT OF TEMPERATURE ON IRON.—An official statement of tests made in the Massachusetts Arsenal to ascertain the effect of temperature on the strength of iron has been published. The specimens were heated by rows of Bunsen burners, which were arranged in a muffle, and the temperatures of the test specimens were judged by their observed expansions. Each piece was heated to the temperature of the test being strained, and its expansion determined by a micrometer, and the coefficient of expansion of each grade of metal having been determined before the tests began, the temperature could be inferred with considerable precision. An abstract of five of these tests, the temperatures being all on the Fahrenheit scale, is in evidence that the strength of steel is greater at about 500 deg. than it is at 70 deg. These five series of tests were made with five different qualities of steel, containing respectively 0·09, 0·20, 0·31, 0·37, 0·51 per cent. of carbon, and the percentage of strength was obtained by dividing the tensile strength of a sample of steel at a given temperature by the strength of the same quality of steel at 70 deg. The result presents the interesting fact that the specimens in question were all stronger in the neighbourhood of zero than they were at ordinary temperatures, all of them, in fact, showing a minimum of strength at 210 deg. or thereabouts, and a maximum of strength at about 550 deg.

SCHEME FOR THE DEVELOPMENT OF HALKIN MOUNTAIN.—We are given to understand, says the *Liverpool Mercury*, that a scheme is being set on foot to form a Limited Liability company for the purpose of constructing an adit or level from Bagillt to Halkin Mountain, about four miles inland. The level would start from a point at Bagillt, near the Bettisfield Colliery, where the channel of the Dee runs close to the shore at a good navigable depth. It would then run inland under the Milwr district, and thence on to Halkin Mountain, draining in its passage a tract of country studded with lead mines, which have had to be abandoned owing to the tremendous volume of water met with, the latest of these to be deserted having been the famous Milwr Mines, at which about £50,000 was spent in a vain effort to fight the water, and should the new scheme be carried out, in all probability a new company would be floated to work the mines, which in past years have yielded immense quantities of lead. Halkin Mountain has often been referred to by geologists and engineers as a veritable mine of unexplored wealth, abounding, as it does, in lead, marble, and limestone; but hitherto very little has been done in the way of getting these valuable products, owing to the distance of Halkin from any railway station, and the consequent heavy cost of cartage to train or ship. It is intended to use the new tunnel or level not only for drainage purposes, but as a means of transit for the products of the mountain, by means of a tramway, down to the River Dee, where they can be at once shipped off to Liverpool or Manchester, or put on the railway, which runs close to the proposed outlet.

THE DISCOVERY OF PETROLEUM IN SOMERSET.*

REPORT OF THE EXPERTS.—BORING RECOMMENDED.

THE discovery of crude petroleum on the Ashwick estate, in Somersetshire, has now entered upon the active stage. Professor Redwood, the chief petroleum expert in England, has been twice at Ashwick during the past week. He came down on Tuesday, and took samples of the oily scum, and the oil globules were present in abundance, notwithstanding the incessant rains and the consequent washing of the well, and the water has been pumped out as fast as it came in, and in this way large volumes of water have been in and out of the well. The experts in their report are so satisfied of the genuineness of the whole affair as to make the very strong statement—strong by reason of coming from such men as Messrs. Redwood and Topley—that as the result of their investigation sufficient oil does exist in the locality to warrant any expenditure that may be necessary for boring. They were also of opinion that the detonations of a few charges of a high explosive in the well might have the effect of liberating deposits of the oil in the contiguous rock, and causing a further considerable flow into the well. This recommendation was acted upon on Saturday, and with remarkable results, which amply confirmed the opinion of the experts. Mr. Redwood's visit on Saturday was chiefly to superintend the blasting operations. The well had previously been pumped dry, and holes drilled in the bottom for the reception of dynamite cartridges. The cartridges, having been placed in position between 5 and 10 feet of water, were allowed to accumulate to act as additional pressure. On Mr. Redwood's arrival at the well, between 10 and 11 o'clock on Saturday morning, the fuse was ignited, but unfortunately it failed to explode the charges. Another cartridge was then prepared and weighted, and with fuse attached let down to the bottom of the well. It was thought that perhaps the concussion from the explosion of this cartridge might explode the other two, but as was subsequently proved it did not do so. The last cartridge did explode. After waiting less than 20 minutes the men were started pumping. The water came up thickly coated with oil. The excitement amongst the party was very great, and even Professor Redwood was distinctly infected with the enthusiasm of the others. He regarded the result of the explosion as remarkable. It is worthy of mention that in some of the most prolific oil fields abroad, in America and elsewhere, no less than 80 quarts of nitro-glycerine has been exploded without obtaining such satisfactory results as followed the discharge of 1½ ounce dynamite cartridge at Ashwick on Saturday. Another significant fact is the constant presence of the oil all through the rainy season, and, in fact, for years. With regard to the report of Messrs. Redwood and Topley, the document is very interesting reading, and of a scientific and technical character. The flashing point as shown by the closed test is remarkably high. Messrs. Redwood and Topley state: "On visiting the well we carefully took a sample from the top of the water, and on examining it we readily detected the presence of characteristic globules of oil, exhibiting marked irridescence. The water had a distinct smell and taste of petroleum. On the banks of the spring in the valley on the north side, and opposite the well, we found some slight signs of the presence of petroleum. Returning to the well, we observed the water flowing from the pump was coated with an oily film. On the following day, as the level of the water in the well was lowered, there was a slight increase in the quantity of oil on the surface, while the water itself had a stronger colour of petroleum. It was worthy of note that the lower end of the suction-pipe of the pump was within a few feet of the bottom of the well, and that the presence of oil-globules in the water, therefore, indicated that the petroleum was by no means confined to the stratum of water which we had previously removed by the use of a bucket." Referring to the evidence collected, and which is given in an appendix to the report, of the extraordinary flow of oil in 1892, the report proceeds: "It will be noted that the whole of the statements are in harmony, and we may remark that they were made in a manner which impressed us very favourably. As regards other indications of the presence of petroleum in the locality, the evidence of the Rev. G. H. De Fraine, vicar of Stoke St. Michael, is quoted. This gentleman not only asserted positively that he had found petroleum in the water supply of the vicarage, but from personal observation confirmed the rumours that had reached us relative to the occurrence of petroleum in the well at Giddy Lane." Referring to their examination of the well at Ashwick Court, Messrs. Redwood and Topley state: "We took a sample of red clay which had a smell of petroleum. The water at the bottom of the well was coated with a film similar to that which we had observed on samples brought to the surface, and there was an odour of petroleum in the well." Allusion is made to the coal and shale oil found in the country, and the experts add "that petroleum met with in coal and shale mines, specimens of which we have had occasion to examine, differs greatly, however, to that which has been obtained from the Ashwick well. It is black or brownish-black in colour by reflected light; opaque, except in a thin stratum, when it has a dark brown colour transmitted by light; viscid or semi-solid at common temperatures owing to the presence of bitumen and paraffin, and usually of comparatively high density. On the other hand, the specimens of the oil obtained from the well at Ashwick were transparent, of straw colour; exhibiting practically no fluorescence, and had an odour resembling that of refined rather than crude oil. It had a specific gravity of ·816 at 60 deg. F., and a flashing point of 175 deg. F. by the closed test." After giving other chemical details, the report proceeds:—"As far as we are aware, no crude petroleum had previously been discovered in this country, and the case is, therefore, invested with exceptional scientific interest." The occurrence of oil of somewhat similar character in other parts of the world is mentioned with differences of specific gravity. A special note is made of a recent discovery in Wales of oil of a similar colour and odour to that of Ashwick, and occurring, as at Ashwick, after a local disturbance, and the experts write:—"We regard this as affording confirmation of the satisfactory conclusions to which our investigation of the discovery at Ashwick had led us." An exhaustive statement on the geology of the district is followed by the announcement "that the indications of petroleum are not here confined to one geological horizon," and proceeds, "If petroleum occurs in any large quantity in this district it is probably only in strata which have been continuously covered up by overlying impervious strata ever since their original deposition. On the northern part of the Ashwick estate we have the coal measures; there the limestone beds are, and always have been, deeply covered with overlying strata, and would be reached at a vertical depth from the surface of about 1200 feet." The important part, however, from a commercial point of view, is do the experts advise boring? They do most emphatically, as will be seen from the concluding paragraph in their report.

* *Daily News.*

ON SILVER AND GOLD MINING AND REDUCTION IN MEXICO.

BY J. HOWARD PALMER, B.A.

IN view of the present unprecedented depreciation of silver, the following remarks upon silver and gold mining in Mexico may not be out of season:—In the first instance, it may be laid down that the effects of the fall in silver upon the mining interest in Mexico and other countries with a silver standard have been greatly exaggerated. The question is not what is the effect of cheap silver, and a constantly falling exchange upon trade and finance, but how do the mines, as far as actual working expenses and profits go, feel the decline in the gold value of their principal product? The best answer is that in Mexico the production of silver has actually increased since the last great fall in the price of the metal, and, therefore, it seems only natural to conclude that the amount of prejudice suffered by the industry must be insignificant.

Profits measured in gold have, of course, diminished, but the working expenses of the mines have not appreciably increased, for the reason that in Mexico all wages, stores, and material of native production are paid for in silver. In the States the case is very different. In Colorado, for instance, nearly all the silver mines are shut down, and no wonder, considering that an American miner commands $3 gold per day, whereas a Mexican's wages are $1 silver currency. At present the Mexican dollar is worth about 50 cents. American, so that mining labour is six times dearer in the States than in Mexico. Of course it may be answered that the American is at least three times more efficient that the Mexican miner, but any one who has seen Mexicans at work underground in the Pachuca, Guanajuato, and Zacatecas districts, will say that there are hardly better miners anywhere, and that they do nearly as much work as white men. This supply of cheap and efficient labour has done a great deal to keep up the prosperity of the Mexican silver mines. With regard to material — machinery imported from England or the States dynamite and drill-steel are, of course, dearer, but everything else used in the mines is of native production, and, therefore, unaffected by the price of silver. Such materials as timber, candles, sacks and ropes, salt, sulphate of copper, are produced in the country, and, therefore, unaltered in price. Hence the only two ways in which the silver industry has suffered are by the loss on exchange for remittances, and the increased cost of imported stores and machinery.

There is also an important compensation in the fact that most of the Mexican silver ores contain gold as well, and that the gold contents command an increasing premium as the value of the silver diminishes. In Mexico the usual plan of disposing of the bullion is to send the bars of doré silver to the mints, which buy the silver at its actual currency value, and allow a premium upon the gold according to the silver price of the day. Parting charges and dues are, of course, deducted, and these are a very heavy item, a good deal larger than the English mining companies sometimes imagine, being from 5 to 6 per cent. of the gross value of the bullion. These parting charges are assessed upon the weight of the bullion, and consequently swallow up nearly all the value of the gold when it does not exceed more than three or four parts in a thousand.

There are many mines producing 3 or 4 dwts. of gold and 20 ounces of silver per ton, in which the gold should give a good profit, but owing to these charges upon the doré bullion, the mint, not the mine, gets the benefit. In the old patio system of amalgamation mercury or copper amalgam is introduced into the arrastras, where the ore is ground cold without any chemicals; most of the free gold is thus amalgamated with but a small proportion of the silver, and the bulk of the silver, which is afterwards reduced in the torta, only contains very small traces of gold. By this method, however, all the gold contained in the pyrites of the ore is lost, and the yield is not likely to be more than 50 per cent., if so much. The metal obtained from the arrastras generally contains from 10 to 20 per cent. gold, the remainder being silver and copper, and the parting charges are consequently low. The ordinary pan amalgamation certainly saves a larger percentage of gold than the patio system, but there are two disadvantages —first, the gold is included in so large a quantity of silver as to be practically valueless; and, secondly, the percentage of silver extracted is generally 10 per cent. less than by the patio process.

When the Mexicans save 90 per cent. or more, the latest American machinery may only succeed in saving 80 per cent. In districts away from the railways it may be taken that milling and patio amalgamation will cost practically the same, about $11 Mexican per English ton, but where freight is cheap and machine parts, castings, &c., can be readily procured, milling will cost less—from $7 to $9 per ton. Conditions vary so much in different districts that it is almost impossible to lay down with certainty what it should cost to mill any particular ore, without studying the problem on the spot. What is particularly wanted in Mexico is a process by which a good percentage of the gold shall be recovered uncontaminated with great quantities of silver.

On the mines with which the writer was connected, copper plates were used outside the battery, and mercury was also placed in iron grinding pans, through which the pulp passed after leaving the plates. In this way a product was obtained containing 5 to 10 per cent. of gold, the amount recovered being about half the contents of the ore. It was still found, unfortunately, that the bulk of the silver, which was afterwards amalgamated hot in the usual way, contained 2 to 3 parts per 1000 of gold, which was commercially valueless. On another ore, however, with more free gold it might be found that the copper plate amalgamation would be more successful. Perhaps, also, one of the cyanide processes might meet the difficulty by leaching out the gold contents first, and submitting the tailings to ordinary amalgamation. The question is a very interesting and important one, and does not as yet seem to have received the attention it deserves.

AFFAIRS IN SOUTH AFRICA.—Further correspondence relating to the affairs in Matabeland, Mashonaland, and the Bechuanaland Protectorate has been issued as a parliamentary paper. The Blue Book contains correspondence extending from 24th October of last year to 26th February, 1894. On 15th February the Marquis of Ripon wrote to Sir Henry Loch, directing that, notwithstanding the death of Captain Lendy, the inquiries into his action at Fort Victoria should be proceeded with, as Dr. Jameson and the British South Africa Company had taken the responsibility of the Marquis of Ripon (Colonial Secretary) to express the opinion that the investigation of the circumstances should be entrusted to some officer with the necessary professional training and wholly unconnected with the political aspects of the question. While ascertaining all the facts of the case, this officer should abstain from countenancing reflections on Captain Lendy's personal character. The last despatch, received on 26th February, confirms the death of Lobengula.

NEW FORM OF STEEL TUBING.—Messrs. Frank Williams and Co., Eagle Works, Wolverhampton, are now manufacturing a new form of steel tubing. These pipes are made of half round steel channels with wedge joints of rolled steel.

MEETINGS OF MINING COMPANIES.

CARATAL MINING COMPANY.

Exceptionally good tailings.—The question of treatment.

THE second ordinary general meeting of the shareholders in the Caratal Mining Company was held on Monday, at Winchester House, Old Broad-street, under the chairmanship of Mr. ROBERT WALKER, J.P.

The SECRETARY (Mr. H. C. Bryon) read the notice convening the meeting.

The CHAIRMAN said: At our last statutory meeting I explained that the shares taken up in the company only amounted to about one-half, but it was distinctly understood that when the directors took office the first thing to be ascertained was the prospects of the mine, and to have a report upon the mine in order to judge whether it was worth while to continue the operations of the company. We sent out Mr. Freshfield as soon as the country was settled sufficiently, and he would have given us that report in order to guide us, but, unfortunately, he did not have time to wait until the mine was unwatered, and we did not have a report from him. Afterwards, Mr. Bull, one of your directors, went out himself, and it is to his foresight in bringing back a quantity of the tailings of exceptional richness—of which we knew a large quantity existed—that the fact of a great many other shares being taken up is due; in fact, I believe the whole were taken up. That altered the aspect of affairs, because before that we could never have had the capital to work the mine. The capital we had was only sufficient to get possession, and to get a report as to the future capacity of the mine. For a long time before this tailings were brought in which gave a very different prospect to the company, and we were very doubtful about it; but the possession of the tailings brought by Mr. Bull put the company in a very different position, because it was felt that there was a very large value in those tailings, which had only to be worked by the process most adapted to them. Instead of being in a doubtful, we were then in a very hopeful position, and I am not surprised that so many of the old shareholders, when they were appealed to, increased their holdings. For myself, I doubled my holding, although I was then a very considerable shareholder, at very high prices, in the old property. However, I mention this just to show you that the delay which has occurred since is owing to no fault on the part of the directors. The position was simply this—that the creditors there wanted to take advantage of their opportunity, and they brought in claims to a very much larger amount than would have been the case under different circumstances. The matter was then in the hands of the liquidator, who naturally thought that it was better, before acceding to these terms, that they should go before the court, there to be proved, and that afterwards it was time enough for us to come forward and pay what the court considered we ought to pay. We are now in a position to have that matter carried through very shortly, and the moment that is done we shall have possession of the property, and shall possess a free hand to do as we please. There is another question I should like to allude to, in order to show that we have not been idle all this time. The question of the treatment of the tailings has given us very great concern. We all know that the cyanide process is a comparatively recent innovation, and that it has been very successful in South Africa, and wherever the tailings are in a suitable state to be treated by that process. At the same time, it does not follow that the MacArthur-Forrest or any other process would be the best for the treatment of our tailings. I have studied the subject a good deal myself, and I know that the cyanide process is an improvement on the MacArthur-Forrest process. We were approached by a syndicate formed for the purpose of treating our tailings by the MacArthur-Forrest process. We were led to believe that by treating with them we should derive exceptional advantages. We waited for a considerable time, and there was no proposition brought before us; but when it was brought before us we found that the terms were—I will not say unreasonable—but rather too much was asked for the treatment, for we were asked to pay 12 per cent. upon the gold recovered. We did everything in our power to get those terms reduced, but they would not move, and, therefore, we naturally thought we might do better by giving the treatment to the Cassell's Company. I happened to know the Chairman of that company personally. I saw him, and in half an hour he agreed to the terms I proposed—1s. per ton upon the tailings. That proposition was laid before his board, and was accepted, and we were told that in a very short time we should get the draft of the contract; but ultimately a communication was sent to us from the Cassell's Company withdrawing from the negotiations, and when we asked what was the reason for their withdrawing from their bargain, we were referred to a party who I presume—but I am not certain—represented the old syndicate who had approached us previously, and their proposition was 12 per cent. upon the gross value for a certain number of years, which, I need not tell you, is very different from 1s. per ton on the tailings. We could not think of that for a single moment, and we are now looking out for a treatment by the cyanide process on something like the terms originally agreed upon by the Cassell's Company. I am told that during the time these negotiations have been going on this original syndicate has been applying for patents; so you can easily imagine what their object would be in having patents out there, which would be to enable them to treat with them, if we agreed on that particular process on their own terms. I have told you exactly what has occurred, and you can draw your own conclusions. We have done our utmost, as you will see, to get a treatment by the improved cyanide process in order that we might obtain the greatest possible advantage from the large amount of tailings we possess. I have now to move the adoption of the report and accounts.

Mr. A. BULL seconded the motion, maintaining that endeavours had been made to thwart the company from getting possession of the mine both on this and on the other side. He had come to the determination that nothing should be done by the company with regard to the property until they had obtained a proper title, and great as had been the delay over this, and much as he regretted it, if he had his time over again he would do precisely the same as he had done in the past. Consequently upon the exertions they had made the property was now in their own hands, and all they wanted was the title. As soon as they got the title they would pay for the mine, and not before. His own belief in the future of the mine might be gathered from the fact that he had increased his holding from 500 to 14,000 shares, and he believed that before long, and as soon as they got the property into their own hands, the shares would be selling at from 2s. to 3s. each.

Mr. SKETCHLEY, mining engineer, gave some details respecting his experience of the property, which he had known for the last 20 years. They had on the property one of the most constant and true fissure veins existing in Venezuela, which had held true from the top to the bottom of the shaft. This was the lode known as the Chili lode, but on the property they had one if not two more veins of equal richness, which had never been touched. Although it had never been worked properly, the mine in the past had turned out as much as 2000 ounces of gold per month. In addition to that, there were 100,000 tons of tailings, worth about 17s. per ton. In his opinion, they had a first-rate mine, and they had on their board a body of commercial gentlemen of the highest integrity, and it would be their fault alone if, before long, they were not able to get substantial dividends from the mine.

Mr. GOODE (the liquidator) explained at some length the financial position of the company.

Some discussion having taken place, the report and accounts were adopted, and the proceedings terminated in the usual manner.

THE BESSEMER GOLD MEDAL will be awarded this year by the Iron and Steel Institute to Mr. John Gjers, ironmaster, of Middlesborough.

WEST AUSTRALIAN GOLD FIELDS.

The company successfully floated.—No water difficulty.

The first general (statutory) meeting of the West Australian Gold Fields (Limited) was held on Monday, at the Cannon-street Hotel, E.C., the Right Hon. Lord CASTLETOWN occupying the chair.

The SECRETARY (Mr. Allen H. P. Stoneham) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, this is what is called a statutory meeting. As the company was registered on November 14 last, it is absolutely necessary, as is explained to you in the notice, to have this meeting at the present time. The public issue of the company was advertised on Saturday, February 17, and Monday, February 19, only, and the result is that we have now nearly 450 shareholders, and the total subscriptions amount to £42,788. We did not desire to get any more capital, and have had to refuse applications for shares which have since been made, for we feel certain that if at any time we require any further funds we shall be able to issue the remainder of the share capital at a very substantial premium, and, as it is, we have, after paying Mr. Saunders the small sum of cash provided by his contract, upwards of £40,000 left intact for working capital. Our policy will be a forward and energetic, but not a hasty one. We have already dispatched two prospecting parties to select our claims, and we have urged them to push on as fast as possible. We know there are many places on the Hampton Lands Company's property on which payable gold is obtainable. The Hampton Lands Company is continually receiving letters from its manager and from gentlemen of position who have visited the lands, and who, one and all, bear testimony to the richness of that property. Lord Percy Douglas, who is one of our colonial directors, went on the land and saw the alluvial and the reefs before he returned to England last spring. Mr. Lapage, one of our directors, spent some considerable time selecting the lands for the Hampton Lands Company in the early part of last year. The lands have all been selected for their mineral qualities by competent men, and there can be no doubt in the mind of any reasonable person as to the fact of there being payable gold on the land of the Hampton Lands Company; so that it will be a very extraordinary thing if this company cannot select some good claims for itself. The contract gives us the right to select 20 claims of 25 acres each and 100 acres of alluvial. We shall act throughout on the advice of Messrs. Bewick and Moreing, who have dispatched their partner (Mr. Mercer) to Coolgardie for the purpose of assisting us in the selection of the claims. The prospectors will be selected by Lord Percy Douglas and Mr. Mercer, and as Lord Percy is widely known at Coolgardie, and is very popular with the mining element there, and is himself largely interested in the success of this company, we may all feel sure that the utmost care will be taken in selecting good men. After they have selected claims they will be examined by Mr. Mercer; so that, with all these safeguards, we certainly ought to get some good claims. Under the contract Mr. Saunders made with the Hampton Company we have the right, if any of these claims turn out disappointing, to throw them up, and take others which suit us better. This is a most valuable provision, and I think it reflects a great deal of credit on Mr. Saunders for having arranged such terms. (Hear, hear.) It must be remembered that this land was acquired from the Government some years ago as pastoral land, the mineral rights being subsequently obtained, and it is quite certain that no such concession could be obtained from the Government to-day. On page 209 of the Government "Year Book" the following words occur:—"The available land for prospecting in the neighbourhood of Coolgardie is limited, as this belt lies between the granite country and the freehold land of the Hampton Plains Company." There is one point connected with this which, perhaps, should be touched upon, and it was referred to by one of our London evening newspapers. The City Editor asked why it was that if the scheme was so good it was ever brought to London, and not kept in the colony; for all good things were, as a rule, kept by the colonials themselves. The enterprise was offered to the English public for two very good reasons. The first is because the Hampton Lands property is owned in London, and the contract could not have been obtained by Mr. Saunders unless he had come to England to get it: and the second is because the Hampton Lands Company stipulated that Mr. Saunders should form a company in London to take over the contract before he returned to the colony. But it may be asked how it is, if the land is valuable, that portions have not been sold in the colony, and to that we reply that offers of very large sums of money have been made for the property of the Hampton Lands shareholders; but the Hampton Lands shareholders, believing that they have a good thing, intend to retain a substantial interest in the company which it is now proposed to form. As a result, a syndicate has been formed to acquire the option to purchase the Hampton Lands Company's property. All the capital of the syndicate has been more than subscribed privately, and the West Australian Gold Fields (Limited) will, in due course, promote the new Hampton Lands Company on behalf of this syndicate, in which the Gold Fields Company itself has a substantial interest. We have already disposed of two claims on most advantageous terms to a gentleman who is now believed to be on the fields with ample private means at his disposal. This gentleman selects his own claims, finds all working capital and machinery, and gives us one-half of his net profits after settling with the Hampton Lands Company. If he succeed, as we believe he will, we take a profit without any risk; if he do not succeed, we have saved ourselves from the loss which we should have incurred had we done as he proposes doing. This contract was made by Mr. Saunders before the public issue, and we thought it so advantageous that we took it over; but another point in favour of this contract is that, whilst this gentleman is selecting his own claims, he is also bound to mark out any likely claims for us at the same time; so that, in effect, his private prospecting party is really also prospecting for us without expenses. Secondly, we have ourselves dispatched two selecting parties, which will act under the guidance of Mr. Mercer (our engineer) and Lord Percy Douglas. A cablegram informs us that these parties have started; so that we have really now three parties at work taking up our claims, and, considering that it is less than a month since the public issue, and these three prospecting parties are already at work, I am sure you will admit that we have not lost any time. (Hear, hear.) Now comes the question of machinery. You are aware that Mr. Saunders sent out some machinery at his own risk, in order to save time, and some of this I expect is by this time at work at Coolgardie; at all events, it was at Southern Cross, 112 miles from Coolgardie, on January 29. Mr. Saunders, I may say, has undoubtedly assisted this company very much by sending the machinery as soon as he did, and we have entered into an advantageous bargain with him with regard to the option of purchasing the machinery. I will now deal with the question of the telegraph line to Coolgardie. At present the line only exists to Southern Cross, but I am pleased to say the Government has decided to extend it at once to Coolgardie, and within a very short time we expect to hear that the line is opened. Then we come to a still more important point—that is, the question of the railway. It is stated in the *South Australian Register* of March 8, 1894, that by the end of March or the beginning of April the railway will be opened to Southern Cross, and I also learn from the colonial newspapers that the Government has promised to extend the line to Coolgardie directly Parliament meets and can vote the money. The present railway from Northam to Southern Cross was only begun 12 months ago, in consequence of the rush to Coolgardie. It is being built by the Government, and as the contractor has practically built 160 miles in 12 months, I am sure he cannot be accused of delay in that respect, and it shows what the Government thinks of the gold field. I believe the water difficulty has been greatly magnified. Of course, there is a scarcity of water where no means have been taken to preserve it; so there is in every country. The truth is that plenty of rain falls and runs away because it is not conserved. The rainfall at Coolgardie was 15 inches last year, according to a paragraph in the *Western Mail*, or more than half the average rainfall in England, and with proper storage there need be no dearth of water. Another interesting fact is that water has invariably been found where sinking has been adopted. Lastly, the Government is building tanks of great storage capacity, and we shall still, no doubt, hear of great privations undergone by men who rush about from one place to another without taking proper supplies of water with them, or without knowing where to find the permanent supplies; but as the country is opened up, undoubtedly this class of privation will become less and less. To give you an idea of the extent to which civilisation is going on in the district, I may mention that we have heard to-day that there are three banks open at Coolgardie at the present time. I have told you all I could think of, and, in conclusion, I may say that we have completed the purchase of Mr. Saunders' rights, and have paid him the purchase price mentioned in the prospectus. We are negotiating with Mr. Saunders with the view of his leaving shortly for Western Australia as the company's local manager. (Hear, hear.) I do not think there are any other points for me to mention at the present time; but Mr. Lapage, who is here, will be pleased to answer any questions relative to Coolgardie in particular, and Western Australia in general. He has been there, and knows the country thoroughly, as far as an unprospected country can be known at the present moment.

Mr. LAPAGE pointed out to the meeting the situation of Coolgardie on the map, and, in answer to questions, said that Bayley's claim, the principal mine yet worked, although capitalised at £25,000, was to-day worth £500,000. According to his information there was no fear of any difficulty with regard to water, for a friend of his had written to say the water had been discovered at a depth of only 120 feet. All the property was surveyed by the Hampton Lands Company, and the West Australian Gold Fields could go where it liked. He was not aware of any other company having permission to prospect. The company's property was distant only a mile and a quarter from Bayley's find, and he had himself seen gold-bearing reefs there.

The meeting terminated in the usual manner, with a vote of thanks to the Chairman for presiding.

GLENROCK COMPANY, LIMITED.

A vigorous and able management.—Great success of the cyanide process.

The first ordinary general meeting of the Glenrock Company (Limited) was held on Wednesday, at the Cannon-street Hotel, under the presidency of Mr. GEORGE FIELD TAVENOR.

The SECRETARY (Mr. W. P. Owen) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, the last time I had the pleasure of addressing you, at the end of last year, I did so for the purpose of going seriously into the question of the future development and working of the Premier Mine. Mr. Stanford, our manager in New Zealand, in a letter under date August 6th, put before us, in a painstaking way, the manner in which he considered we should prosecute our further working and development in the Premier Mine. He asked us to subscribe a certain amount of money to strengthen his hands, and to enable him to do the work which, in his opinion, would probably give further large supplies of good ore. Well, we placed this letter before you, and asked for your opinion. That opinion was unanimously in favour of Mr. Stanford's recommendation, and of subscribing the money. Acting promptly upon the wishes of our shareholders, therefore, we turned to reconstruction, and sent out letters of application in the ordinary course. Our shareholders not only responded in the most liberal and generous manner with their applications, but they went beyond that. We said in one of our circulars—at least the liquidator said—that any shares not applied for by the body of shareholders, in accordance with the holding they possessed, might be applied for by others at any premium which they felt themselves inclined to give. That brought us in applications for no fewer than 90,000 shares in excess of what we really had. We then adopted a course, which I think no shareholder has any reason to complain of, although some grew impatient at what they called the lengthened interval between the posting of the circulars and the allotment, and that was to place every shareholder, no matter how late his application was sent, in the same category, and to give him the same advantages as those who had already applied. Some shareholders were in the country, others were sick or abroad, and they would have thought themselves very hardly treated unless their claims were considered, and we thought the other shareholders would naturally like their colleagues to participate in an undertaking which promised to be a happy one. Even with that there were, I think, something like 10,000 shares left over. Applications, varying in price from a penny premium upwards, for 90,000 shares, were sent to the liquidator, and the whole of these shares were allocated by him at the price of something over 2s. a share. That was a very good price to obtain. Our reconstruction being so satisfactorily concluded, let me tell you what has been done since then. In the first instance, Mr. Stanford has lost no time whatever in pushing on his development work. He has sunk a shaft where he anticipates being able to work ahead on fresh levels, and is now down some 60 feet. It will be, I daresay, the end of that shaft, and, what is more important, will perhaps within a short time bring us to another strong lode of gold ore, and Mr. Stanford is very hopeful that in other places he will come upon rich shoots also. All this points to the fact that Mr. Stanford's promises, contained in his letter of August last, have been fully borne out by results. He required some financial encouragement to progress with his work. To take out from the mine itself every month a certain amount of gold, and to place that gold back during the following month in the development of the mine, is such a hand-to-mouth business that our shareholders at once saw the inexpediency of it. Mr. Stanford could never make any terms with regard to contracts, and consequently was heavily handicapped. Your active support has naturally put him into a more advantageous position, and he is now progressing actively. There is one portion of the work which I have to explain more fully. Some short time since we had an opportunity of purchasing for an old song 10 extra stamps situated in the immediate vicinity of the mine. We got these stamps, which were very good ones, for £150, which was a wonderfully cheap price. Mr. Stanford has now, I believe, got them in position on the Premier Mine. With the 10 stamps already erected, the additional set made 20, besides the 10 Sunrise stamps, within a very short cartage, and we can in the future, when circumstances justify it, use the whole 30 stamps, which should enable us to crush something like 800 or 900 tons a month. With the additional 10 head of stamps we purchased the Sunrise property itself. The property is a little higher up than our own, and is more in the direction of a very stiff mountain called the Advance Peak—a very precipitous mountain, indeed. The mine has produced a wonderful lot of gold in its time. When we can spare opportunity and attention for it in the future it may be a very valuable adjunct to our undertaking, and may become by-and-bye become one of our chief sources for the supply of ore. Mr. Stanford made a very commendable suggestion to us, which was that we should acquire a small cyanide plant. Sometime ago we informed you that we had a good quantity of tailings at the Premier Mine, and some of these tailings were sent for assay, and the assay value of them was from 2 ounces to 3 ounces of gold per ton. When, therefore, Mr. Stanford suggested to us the advisability of placing a small cyanide plant on the ground, he knew that he had a certain number of tons of tailings which would give at least 2 ounces to the ton. Well, this cyanide plant was laid down, and we have been waiting for some time to know the result. I need not tell you that some of the mines in South Africa are showing wonderful results since the erection of the cyanide plant. Some of the returns have been doubled and trebled. We were very anxious to know what the result would be in our case, but we did not like to bother Mr. Stanford after he had sent us the last cable. However, we trusted to learn something about it. Happily, Mr. Stanford cabled us apparently last night, and this message was received in the office this morning:—"The cyanide process has been very successful; 62 tons produced 148 ounces of gold." (Applause.) That is very good indeed. Then he goes on to say:—"Main shaft has struck lode." (Applause.) That seems to me to mean that where he has been sinking in the 60 feet level he has struck the lode, which will have to be tunnelled on to catch up the gold vein, which may take a little time. It is very gratifying, indeed, to us to know that the cyanide process has been a success. (Applause.) It makes a wonderful difference to our prospects. I am not certain, but I believe that we have close on 3000 tons of tailings. Supposing that to be the case—at any rate there must be a large quantity, for since Mr. Stanford's arrival he has put 2900 tons through the mill—then if they were to yield anything like as richly as the first lot, we should have a very considerable addition to our resources. The cyanide process as we have it is not a very expensive one. It is not like some of the plants on the mines at the Randt. We have only paid a small amount for it, and that should be very nearly covered by the result of the first batch. Of course, if our crushing power becomes augmented, we can easily augment the cyanide process—even to seven times its present capacity. Having spoken of the adoption of the cyanide process, which has been a subject of some anxiety with us, I will now tell you what else Mr. Stanford has been doing. He thinks that it is very possible he will pick up a good ore body by further developing in the vicinity of the shaft, which is already sunk down 60 feet. The shaft being sunk now is 7 feet 3 inches by 3 feet 9 inches, and we have two smaller shafts, east and west, all these being sunk for the purpose of hastening development work at that end. In this connection I may tell you that it is very possible we may have to put down more hauling gear within a short period. That will cost something, and we thought it better before cabling Mr. Stanford with regard to the matter to await the arrival on the spot of a gentleman whose name must be very well known to you—the principle vendor of the Premier Mine, Mr. W. J. Farrell. He went back to New Zealand about six weeks ago, and should arrive there in the course of next week. Considering that he was the vendor, and has something over 13,000 shares, we consider it expedient that whatever knowledge he may possess should be placed at the disposal of Mr. Stanford, so that with Mr. Farrell's past knowledge of the mine, and Mr. Stanford's present knowledge, whatever cable we get next month may be deemed conclusive as to the expediency of whatever these gentlemen may desire. Although Mr. Farrell is ultra-sanguine—he looks on the wealth of the Premier Mine as something fabulous—he is not at all disposed to give away or spend his money, consequently if a cable comes from both, saying, 'Let us have hauling gear!" we may be sure that he would not give that advice unless he were going to get his money back in a short time. New Zealand has been a colony wonderfully fruitful in gold. As an instance of that, I may quote one or two letters which appeared in the *Mining World* on January 21 and 27 last, in which it was stated that, taking the statistical reports of the Government agents, some £1,250,000 had been taken from the New Zealand colony in a year, and that one-half of that sum seemed to have come from the Otago district. That is wonderful. I think we may look forward hopefully to the future of the Premier Mine without being at all too sanguine. We have supplied the Glenrock directors of the Premier Company with all the money they have asked for, so that there has not been the slightest delay, thanks to your liberal response to our invitation. We arranged in advancing this money so that we should have a solid mortgage on the Premier property, and I may go so far as to say that we shall also have from the results of the mine £1000 bonus. (Hear, hear.) Within the last few weeks we have secured for this company admission into a syndicate which is at the present moment creating a good deal of attention among many of the most highly capitalised individuals in the City of London. I believe the syndicate, which is called the Hampton Lands Purchase Syndicate, has been subscribed for two or three times over. We have got a small interest in it, and it, I think, will obtain—or rather was obtained in West Australia—the right to purchase some 1,500,000 acres of land on Coolgardie. It may be in your memory that within the last two or three months there have been some very rich finds in the neighbourhood of Coolgardie. The Government of West Australia have been so impressed with the richness of their colony in gold that they have purchased the gold obtained in one of the ventures in immense quantities, and are sending it here to be exhibited in the Imperial Institute. With this in mind, it is gratifying that for a small interest of £250 we have acquired the right to participate in any further developments which may arise in that country. I believe you may confidently rely on a return of at least four times the amount we have invested. I think that is all of interest that I have to tell you. Of course I should be glad to answer any questions. (Applause.)

Mr. DYET asked for some further information as to the outlay the directors proposed to incur.

Major JOSEPHS pointed out that if the amount of tailings the Chairman had mentioned as being possibly within the possession of the company were to assay as high as the first lot had done, the company would very soon be in a dividend paying condition.

The CHAIRMAN, in reply to these and other questions, promised that the utmost possible economy should be effected in the management. With that view the office expenses had been considerably reduced. The company had about 5000 acres of land in India, the whole of which was coffee producing ground of a very good sort. Nothing could possibly please the directors more than the arrival of the time, to which they were all looking, when they could pay a dividend, and the shareholders might rely on their devoting their best endeavours to that end. (Applause.)

A hearty vote of thanks to the Chairman and directors concluded the proceedings.

CONSOLIDATED DEEP LEVELS.

A splendid record.—Another proposal.

An informal meeting of the shareholders of the Consolidated Deep Levels, resident in Europe, was held on Thursday, at Cannon-street Hotel, under the Chairmanship of Sir HORACE FARQUHAR.

The CHAIRMAN said:—I do not think it is necessary on this occasion to read the notice convening the meeting, as it is somewhat of an informal character, seeing that the head offices of the company are in Johannesburg, and that, strictly speaking, the meeting ought to take place there. However, the board in Johannesburg are anxious to know the opinions of the larger shareholders on this side, and, as there are a great many shares held on this side, they were anxious to consult the shareholders on the subject, and so authorised the Exploration Company, who act as their agents in London, to advise with you regarding the proposition I have to bring before you. I suppose you probably know that the Gold Fields of South Africa have offered us £120,000 for 67 claims that we hold on the south of the property of the Simmer and Jack. Well, gentlemen, the first offer that we received from the Gold Fields was considerably under the price I have mentioned to you, and it was only after much negotiation that we came up to the figure of £120,000 Well, the purchasers, the Gold Fields, being interested in all the surrounding claims, had it naturally very much to their interest to acquire those which belonged to us, which were almost in the centre, and after consulting our principal shareholders we made up our minds that it would be most to the advantage to accept this offer. It amounts to £1800 per claim, and I may tell you that Mr. Leopold de Rothschild, who represents by far the largest shareholders in the Consolidated Deep Levels Company, has been kind enough to come here to say he gives his consent and approval to this sale. Besides the sale for £120,000, we have reserved for ourselves the right to put £50,000 into any development scheme we may approve of, so that we not only have this money in cash, but we have the valuable option of going into any formation or company, which the Gold Fields may form if we approve of it. Before this

sale the Consolidated Deep Levels Company had £30,000 in cash, and if you add the £120,000 it makes £150,000. We have also got 84,000 shares in the Rose Deep, and a further option of Rose Deep shares, and we have our claims under the Jumpers and also the East Randt Syndicate, so you will see that the property of the Consolidated Deep Levels is a very considerable one still. We propose with your consent to pay you a dividend of 4s. a share out of profits on the shares of the Consolidated Deep Levels Company, and to retain £100,000. Just now business prospects are looking very satisfactory in South Africa, and Mr. Hamilton Smith is shortly going out, and we thought it was to your advantage we should have money to avail ourselves of any favourable opportunities that may occur of acquiring interest in properties. I have not much more to say except to mention that we have had a very satisfactory telegram from South Africa informing us that the Geldenhuis shaft has struck the main reef, and is 6 feet thick and returns about 12½ dwts. Two days ago there came a telegram saying the reef had been crosscut. I may also mention to you that those who have stuck to their Deep Level Development shares from the first, taking the price of the Geldenhuis Deep and of the Consolidated Deep Level and other advantages, have for every £100 put into the Deep Level Development to-day about £600 in pocket. (Cheers.)

Mr. HAMILTON SMITH said that when he was in South Africa he made a careful examination of the surface mines above all the deep levels in which the Consolidated Deep Levels Company were interested, as the value of the deeper levels was thus indicated. In the case under consideration it was the Simmer and Jack property, and that property, though an excellent one, was not so valuable as the Primrose. In justice it should be mentioned that two of the Transvaal directors of the company were not in favour of the proposal, but they were not aware that the company had secured the option to take £50,000 in shares in the new company—an important difference.

Mr. LEOPOLD DE ROTHSCHILD briefly expressed his acquiescence in the proposed acceptance of the offer.

The meeting unanimously concurred in that view.

A hearty vote of thanks to the Chairman and directors, proposed by Mr. WILLIAMS, terminated the proceedings.

LIBIOLA COPPER MINING COMPANY, LIMITED.

A wonderfully successful year despite the low price of copper.—The mine's future.

The sixth ordinary general meeting of the shareholders of the Libiola Copper Mining Company (Limited) was held on Wednesday, at Dashwood House, the chair being occupied by Mr. K. H. JAMES.

The SECRETARY (Mr. R. S. Archbold) read the notice convening the meeting.

The CHAIRMAN said:—Gentlemen, as you have been pleased to take the report as read, I will now make a few remarks upon the accounts, which have been in your possession now for some days. I have very little to say respecting them, except that they are of a very favourable nature, and that the result is one that will be very pleasing to every shareholder—that we are able to distribute a larger dividend than in the previous year, and despite the fact that copper suffered a drop in the average of £1 16s. 3d. per ton. Fortunately for us, the mine was a little more productive than in 1892, and the amount that we delivered in our standing contract with English smelters was 7607 tons, as compared with 7036 tons in the previous year. The average percentages were practically the same for each year, and the quantity of what we called our No. 1 ore was the same, but we diminished the quantity of No. 2 ore, and increased the quantity of mundic. Of the No. 2 ore we delivered about 300 tons less and 900 tons more of the mundic. The result was that we received for the shipments of 1893 the sum of £26,287, as against £30,204 in 1892. This diminution in the net receipts on the other side was fortunately counterbalanced by a circumstance which has enabled us to add to our profits—viz., that in Italy within recent years a certain demand has sprung up for what we call low class and sulphur ores. These ores would not pay us to ship them abroad, but there is a local consumption which enables us to dispose of fairly large quantities at prices which leave a certain moderate amount of profit. The sales we made for last year practically covered something under £1000 less than our actual expense there — that is to say, our expense for extraction was £11,762, and our receipts for produce were £10,758, and I may mention what, of course, is apparent, that £11,762 covered the extraction, not only of what we sold there, but of what we sent to this country; so, owing to these circumstances, our profit there is on a larger scale than for 1892, and enables us to give you a larger dividend than in former years. We now propose to distribute amongst you a final dividend, which will raise the dividend of 1893 to 7s. 6d., whereas in previous years we were only able to distribute 6s. 6d. (Applause.) I think, gentlemen, we may all congratulate ourselves that the investments we have made in this company are of a favourable nature, more especially as we see around us so many cases of other undertakings which do not pay dividends, but involve the shareholders in a very large loss. Possibly meetings are being held at the present time where directors have to face the shareholders with a very unsatisfactory state of finances. Here that has not been so. We still maintain a large sum of money in Indian 3 per Cents., which, at to-day's valuation, would show a profit of about £500 if we had occasion to realise. We do not think we shall have occasion to do so, but in mining, of course, everything is uncertain, and something might arise which would entail a certain amount of expense. In fact, the map that you see at the side of the wall there is the outcome of a certain proposal that was made to us, which might have entailed a certain amount of expenditure on the part of the mine. Proposals were made to us, not of a very definite character, but which would have become so had we entertained them, to take a much larger quantity of these low class and sulphur ores than we are yet able to deliver. Owing to the mine being situated in a very mountainous district, the gradients of which are very steep, the amount we could carry over the country roads there is naturally somewhat limited. We have done our best in previous years to obviate some of the difficulties, and for that purpose there was a wire tramway constructed, which carries the ore past the most precipitous decline in the neighbourhood of the mines. That, however, still leaves us a good deal of the country road to traverse before we come down to the port. We thought it expedient to send out a gentleman to survey the place for us, and give us some idea as to what the cost would be. His report showed that in order to carry out the plan, which alone would enable us to ship a large quantity of ore at a profit, we should have to incur so large an expenditure that we hardly thought it prudent in the present state of the copper market to entertain the idea; for, low as copper is, it has been lower—not very much so, it is true—and we have to face that tendency, and as America is the ruling factor in the copper market, there is no telling what will happen. She may find it necessary to send a very large surplus quantity into Europe in order to provide the funds for carrying on mining operations. According to the statistical reports received from that country, the consumption in America fell off about 40 per cent. to 45 per cent., which represents somewhere about 40,000 to 45,000 tons of copper, and if they send here that much more copper above the quantity of previous years, it could only be absorbed at a lower range of prices. Taking all these circumstances into consideration, we thought we would stop at the expenditure that we had already incurred—viz., that of sending out a gentleman to give us a report. He called our attention to a matter we had overlooked. The tramway we had put up to overcome some of the difficulties of transport was very slight in its erection, and had been so because we did not feel sure whether it would be a success, and consequently did not like to incur a large expense to begin with. In strengthening and bringing it more in consonance with present ideas, we may have to face during the present year a certain amount of expenditure on that tramway. It will not be more than a few hundreds of pounds, and we hope the increase of output on the other side—for we do intend to increase the output of the non-shipping stoff to a certain extent, as far as our limited means of transport will allow—will cover the extra expenditure, and taking for granted that the price of copper remains as at present, I don't see why you should anticipate much, if any, reduction of dividend for 1894, although we must remember that at the present time the price of copper is from £2 to £2 10s. lower than the average of last year. Fortunately for us, the average copper contents of our ore are not very large, and therefore a reduction even of £2 10s. per ton does not mean so much for our ore, as if it contained a very much higher produce than it does. Out of 7600 tons of ore we have brought to the English market during the present year 3600 was 11 per cent. and 3600 8 per cent. ore. Of course, were the contents of our ore very much higher than 11 per cent., a reduction of £2 10s. would have a much more telling effect. Amongst other things, I may mention that we thought it would be advisable, as no one had been from here to the mine for some time, that our secretary should pay it a visit, more especially as he happened to have some business in the neighbourhood, and we found that the whole of the expense would not fall upon us. Accordingly, he visited the mine, and was very satisfied with what he saw there, and came to the conclusion that everything was being done in a workman-like and miner-like manner, and that the reports we received from the mine were fully justified by the circumstances of the case. The reserves are the same as in very many years past, and, so far as any man can judge, there is no reason why we should not successfully carry out the working of the mine for the profit of the shareholders for many long years. One thing to be remembered is that, as investors, you get a very good interest for your money. Even if you paid the price of issue you get 7½ per cent., and on the present value of your shares you get over 10 per cent. Of course, if you wish to sell out, it is unfortunate that the Stock Exchange do not take the same view of the thing as I do. (Laughter.) They like something which goes up and down. Possibly, if we paid nothing at all, we might, like the Erie Railway, get a very good price for our shares notwithstanding. (Laughter.) You have a mine which gives you an excellent interest for your money—an interest which very few concerns give to their shareholders, and I trust it will long continue. (Applause.) The Chairman concluded by moving the adoption of the report and accounts.

Mr. ARCHBOLD, in accordance with a request that he should describe his recent visit to the mine, said that the visit had been paid after a lapse of very nearly 20 years, during which a great change had taken place in the working of the mine. On the occasion of his first visit the mine seemed to be situated on one side of the hill; now it seemed to have gone over to the other. He was fortunate in being accompanied by Mr. Brown, who seemed to be very much in favour of their increasing the output of pyrites, and who said that if the company could promise definitely a large quantity per annum, there were friends of his who would be disposed to put works up on the spot and burn the ore, and take any amount which could be given them. The only way in which this increase could be effected was by uncovering the mass of pyrites, and when he saw what a stupendous undertaking it would be, he felt it could not possibly be made to pay. When the engineer who drew up the plans went to the mines he was asked to estimate as a practical man what the cost of uncovering the pyrites would be, and his calculation was that it would take the removal of something like 36,000 cubic metres of overburden to uncover the iron pyrites. They then saw that the proposal was quite out of the question. The measures which Captain Jenkin had promised to take would, however, leave a very fair profit. He felt great interest in the Ida gallery, which was a very long work, and extended something like half-a-mile into the heart of the mountain. From end to end the light could be seen, which showed how straight it was made, and Captain Jenkin was working there on two strings of ore 5 or 6 inches wide, going up to the workings above. He had been very anxious to find any masses of ore lying between the gallery and the levels above. So far, however, no very great discoveries had been made. Underfoot the ore was of very good quality, assaying, he should think, about 10 per cent., and he asked Captain Jenkin to go down to some depth, and accordingly he went down until the water drove him back, and as deep as he went the lode was from 4 to 5 metres wide. Until the works were extended below, or some large masses of ore found above, he did not think it would be worth while making an additional road to take the ore away from the gallery. As regards the working of the mine, everything was going on smoothly and satisfactorily, and there was very little to be said. Of course, the tramway to the shipping place would be a great advantage. They would probably save something like 1s. a ton, which on 20,000 tons would be worth saving. Still, I do not think it would justify the expenditure which would be necessary. The wire tramway was an experiment, and was a very weakly concern indeed, sometimes nearly occasioning some severe accidents.

Mr. HORNER suggested the possibility that if the company made some concession to the Stock Exchange, and divided the shares, the Stock Exchange might take a different view of the matter.

A SHAREHOLDER enquired at what figure the reserves of the mine were estimated

The CHAIRMAN replied that it was very difficult to form any idea. The ore was in serpentine formation, and its quantity was a very awkward thing to estimate. There was absolutely no reason to look for any change in the mine.

Mr. E. WOODS asked the directors whether they would not be willing to devote part of the reserve fund to cancelling a certain number of the shares. The mine must ultimately become exhausted, and it would be well to bear the fact in mind.

The CHAIRMAN replied that this was entirely a matter for the shareholders. If they preferred to adopt such a course it was open to them to do so. So far as he could see, the prospects of the mine were better than they were 15 years ago. In conclusion, he moved:—"That a dividend of 7s. 6d. per share for the year ending 31st December last be declared, and that the interim dividend of 2s. 6d. per share paid on the 16th September be considered part thereof, and that the balance of 5s. per share be paid on and after the 21st instant."

This resolution was unanimously adopted, and the proceedings terminated with a hearty vote of thanks to the Chairman and directors.

THE FLAGSTAFF COMPANY (LIMITED).—The first ordinary general meeting of the Flagstaff Company (Limited) was held on Tuesday, at Dashwood House.—Mr. Archibold presided, and stated that as the Chairman was away on the Continent, it was proposed to adjourn the proceedings until Friday, the 30th inst. He accordingly moved a resolution to that effect, which was carried, and the proceedings terminated.

ELMORE'S GERMAN AND AUSTRO-HUNGARIAN METAL.—An extraordinary general meeting of Elmore's German and Austro-Hungarian Metal Company (Limited) was held on Monday, at Winchester House, for the purpose of passing resolutions to the effect that the second special resolution passed in June, 1892, be rescinded, and that the new shares authorised to be created by the first special resolution passed at that time, and the 25,000 shares now unissued of the original capital of the company, should be called preference shares.—Mr. J. MacFarlan, who occupied the chair, said the directors were able to report a far better state of things than had previously existed, and that the company was now unquestionably a success. They had been passing through a most trying time owing to the want of the necessary capital, and it had only been by the directors personally assisting the company to a considerable amount that they had been able to prevent it going into liquidation. Now, however, they were in the satisfactory position of having received a Government contract for the supply of all copper tubes between 7 inches and 12 inches in diameter that would be required by the docks at Kiel, Wilhelmshaven, and Dantzig for the next three years. The board, continued the Chairman, were fully aware that the proposed issue of preference shares was a very stringent measure to adopt, but they believed it to be the only feasible method of saving the company, and of averting heavy loss to the shareholders. They proposed that only 15,000 of the shares should be allotted, and this should give them £30,000. Once the issue was made they could immediately put down additional plant, purchase copper, and, so soon as erected, they could accept the contracts offered to the company, and it would then be only a question of weeks before they were able to earn sufficient money to set aside an amount for dividends. The resolutions, after some discussion, were passed conditionally on the directors agreeing not to carry them into effect if an alternative scheme, prepared by Mr. Elmore, and presented to them could be carried out.

WALKERS, PARKER, AND CO. (LIMITED).—The ordinary general meeting of Walkers, Parker, and Co. (Limited), of Newcastle and Liverpool, was held at Winchester House, on Tuesday.—Mr. Wentworth Walker, the Chairman of the company, presided, and, in moving the adoption of the report and accounts, said the gross profits on trading during the year amounted to £32,773, against £18,279 in last year, and the net profit was £3666, which they proposed to carry forward. The difference between the gross profit and the net profit is large. It must be tantalising to shareholders to see that they have made a somewhat handsome gross profit, and are still unable to pay a dividend: but he was bound to say that if they took off the amount figuring to debit of Mr. E. J. Walker, also a somewhat large bad debt, and the amount of £400, the redemption of Lambeth lease—a new item, but which will be continued in future—they would see the difference between the gross and net profits was, as a matter of fact, exactly the same as it was last year. Notwithstanding the extreme depression in trade, they kept up their sales to the high level of former years, a result almost entirely due to the energy and ability of their different managers and travellers. The principal reason of the better result was that the price of pig lead had been fairly constant—the price between their last two stock-taking dates having only fallen 5s. a ton. Their losses in connection with the coal strike had not been very large, as they had had favourable contracts running at most of their establishments, but still they could not help being somewhat prejudiced by the strike, as they were unable to get enhanced prices for their products. Having regard to the general depression of trade, and the continued fall in the prices of pig lead, the demoralisation of silver, and the partial losses sustained by the coal strike, he unhesitatingly said that the shareholders had reasonable grounds for satisfaction at the result of the year's trading. The resolution was seconded by Mr. I. May Somerville. In the course of the discussion which ensued, a proposal was made for a committee of inspection to be appointed, and the directors intimating that they would concur in any resolution which might be passed on the subject, the report and accounts were adopted. The matter was then further discussed, and in the end it was deemed expedient to abandon the idea of appointing a committee in favour of the election of a new director, solely by the shareholders, the directors stating that they would take no part in the selection, and would refrain from using the proxies which had been sent in.—Mr. Somerville, the retiring director, and Messrs. Chatteris, Nichols, and Co., the auditors, were re-elected, and the proceedings were ultimately adjourned for four weeks on the question of the appointment of a new director, the Chairman announcing that the board would be glad to receive nominations in the interval.

THE MINERS' PROVIDENT SOCIETY.—The ordinary quarterly meeting of the board of management of this society was held at Cardiff, on Saturday. Sir W. T. Lewis presided. The secretary presented the quarterly report, which showed a membership of 63,182, an increase of 4187 for the quarter. The contributions from ordinary members amounted to £11,561, and proprietors percentages £2809; £573 was paid on the death of members, £2050 to widows, £1889 to children, and £5275 to disabled members. The draft annual report and statement of accounts were also submitted and approved. A large number of special cases were considered, and orders made therein.

THE SOUTH WALES COLLIERY OFFICIALS' ASSOCIATION.—On Saturday evening a largely attended meeting of the South Wales Colliery Officials' Association was held in the Assembly Room of the New Inn Hotel, Pontypridd, under the presidency of Mr. D. Davies, manager of the Cwmaman Collieries, near Aberdare. A lengthy deliberation took place upon the question of "uniform timbering in the South Wales collieries," which is one of the proposed reforms Mr. Robson, Inspector of Mines, considers should be adopted in all the collieries in his district. The question is also one of the numerous proposals in the New Special Rules which are being discussed by conferences of the miners and the representatives of the coal-owners. A paper upon the subject was read by the Chairman, and from the discussion which ensued it appeared that the unanimous opinion of the colliery officials of South Wales was that the proposed reform was impracticable in the collieries of South Wales. The system of uniform timbering was adopted in the northern mining districts where the roofs were suitable for such a method, but in the South Wales collieries it was urged that such a mode of timbering was quite impracticable. Mr. W. Jenkins, agent of the Ocean and the Treharris Collieries; Mr. W. W. Hood, agent and part proprietor of the Glamorgan Coal Collieries, Rhondda Valley; Mr. Wight, agent of the Fentre, Tynybedw, and Gelli Collieries, and other mining engineers condemned the proposal.—Other subjects relative to coal mining were discussed.

IRON ORE AND MANGANESE IN CUBA.—The United States Consul at Santiago de Cuba has forwarded to the State Department a report on the iron and manganese ores of Cuba. The principal iron mines of Cuba are between Santiago and Guantanomo, along the south-eastern coast of the island, within a radius of 50 miles. Three American companies—the Juragua, the Sigua, and the Spanish American—have, in the aggregate, invested about $12,000,000 in plants to develop these mines. Several additional millions of American capital are invested in ships which transport the ore from Cuba to Baltimore, Philadelphia, Perth, Amboy, and New York. During the year 1892 the amount of ore shipped from this consular district was 341,050 tons, and for the first six months of the present year the amount was 273,000 tons. Two of three companies—the Sigua and the Spanish American—have shipped thus far very little ore, having not much more than established their plants when the late financial depression in the United States caused the mines to be shut down. The ore from the Cuban mines yields from 60 to 67 per cent. of pig iron. Manganese, which is used in the manufacture of steel, is also found in an unlimited supply in the same mountain range of Cuba in which the iron ore is found, but between Santiago and Manzanillo, within a distance of 75 miles. American enterprise has also asserted itself here by capturing the richest and most available mines. These mines are now being connected with the seaboard by short line railroads. During 1892 there were shipped to the United States from this consular district 18,751 tons of manganese, and during the first six months of the present year the amount transported was 11,640 tons. Cuban maganese has been delivered at Baltimore in the past year at an average cost of about $15 per ton. With the rich deposits of the Ponupo, and other mines recently discovered here, the completion of railroad connections with the coast, and the addition of improved machinery now being put up, those interested in the Cuban mines confidently assert their ability to undersell the Europeans in the American markets.

THE DE LAVAL system of extraction of metals by electricity is now employed in Sweden at Trollhätter, where there are enormous waterfalls. The mineral actually treated is the Grängesberg iron ores, but it is proposed to apply this system to the iron ores which are found in large quantities in the north of Sweden. Dr. De Laval's method, it appears, is very simple and easy to apply, especially where there is a waterfall.

OUR BOOK CASE.

THE WORLD'S MINING LAWS.

Guide to the Mining Laws of the World. By Oswald Walmesley, of Lincoln's Inn, Barrister-at-Law. (London: Eyre and Spottiswoode, and Sweet and Maxwell, Limited.)

"A love of mining enterprise," observes the learned author in his preface, "seems to be associated with the English language, as in nearly every part of the world where mining is carried on, Englishmen or English-speaking Americans are to be found taking an active part in the work as mining engineers or otherwise, whilst a still larger number at home or abroad are interested financially in mining undertakings or concessions." For all such Englishmen Mr. Walmesley has done a good work in providing a comprehensive review of the mining laws of the different countries of the world. So far as we know, no other work in the English language affords, in a handy form, the like opportunity for those interested in mining enterprises, of enquiring for themselves into the laws regulating the acquisition, holding or carrying on of undertakings or concessions. The object of such a work being to enable the layman, as well as the lawyer, to have a ready reference to the laws relating to mines in different countries, the arrangement is necessarily an essential feature of the book. The countries, therefore, are separately dealt with in the order of their importance as mineral-producing districts, taken with respect to their relative proximity to England, which, being the greatest producer, naturally stands pre-eminently first. The arrangement adopted by our author we have found particularly useful in enabling us to compare the progress in legislation made in different parts of the globe. Perhaps the most remarkable feature which will strike the general reader, as well as the student of comparative jurisprudence, will be that, although English-speaking men have apparently taken most interest in mining and in creating a huge mass of codified legislation on the subject of mining in many countries, England, their country of origin, stands almost alone in never having attempted to codify her own mining laws. In fact, not only so, but while during the last 40 years many other countries have been passing scores of enactments, this country, during the same period, with the exception of the Mines Regulation Acts, has been almost devoid of legislation affecting mining interests. Of Great Britain, with which the author first deals, treating of the Stannary laws, the origin and extent of the rights of the free miners of the Forest of Dean, Derbyshire customs, and so on; then of the many countries of the Continent, America, Africa, Asia, Australasia; then of China and Japan; information of the greatest possible interest is afforded. Those of our readers who have taken an interest in the question of Crown royalties will be glad of the opportunity afforded them at a glance to compare the treatment the common law rights of the State in metalliferous mines have received from Englishmen when they have left their native shores. A glance will show that in America, where the common law of England followed the early settlers, the right of the state in metalliferous mines was enforced until they as pioneers in recognising the principle that freedom and liberty was the right thing when it enured to the true interests of the State, having attempted the principle of leasing still adopted as to Crown mines in England, and finding that their mines remained undeveloped, introduced the principle of free mining. Then shortly afterwards followed the discovery of gold in California, with its consequent gold fever and the rush of people from all parts of the globe, and notwithstanding that several revenue bills were introduced in the Senate to enable the State to reap the advantage of these finds, the experience of past failure had its effect, and the friends of free mining ultimately gained the day. No less interesting is it to turn to a table showing how minerals are dealt with in the Crown lands in the various colonies of Australasia, where, too, the common law rights of the Crown in like manner followed the early settlers, which still remain subject to the Crown. Here we find no royalty on gold of any kind is claimed by the Crown or by any one of the seven colonies, nor, with the exception of an export duty of 2s. per ounce on gold, exported from the North Island of New Zealand, anything in the nature of a royalty; and on turning to Africa we find the royalty has been fixed at an amount that bears a proportion very similar to our income tax. A summary of the British South Africa Company's charter will no doubt prove of standing use, and we can safely recommend Mr. Walmesley's book to all who are interested in the evolution of mining laws.

MINING LEGISLATION.

Companies' Work and Mining Law in New South Wales and Victoria. A treatise for the guidance of solicitors, directors, investors, and others. By Alfred de Lissa, Barrister-at-Law. (London: Clowes and Sons, Limited, and George Robertson and Company, Melbourne, Sydney, Adelaide, and Brisbane.)

The object of this work is to furnish a guide for the use of those who may find themselves concerned in the formation or management of incorporated companies, and to afford investors, either as depositors or shareholders, the means of determining upon investments with the minimum risk of loss. With this view, chapters of the work are devoted to managers' and directors' work and liability, the formation of companies, to the various heads under which Articles of Association are ordinarily divided, further chapters pointing out what is to be considered unsoundness in formation and management. The hints given are sound, and the result of general experience. The work is written apparently for the use of Australians in Victoria and New South Wales, and there can be little doubt from recent events that our fellow subjects there have been terribly in need of a little timely advice as to what is good or bad in company promoting. There is a delightful little bit of hidden sarcasm in the author's opening chapter on directors, which we have not quite made up our minds is accidental or intentional. It runs as follows: "It is assumed that a person, before allowing himself to be nominated as a proposed director, has ascertained the *bona fides* of the promoter (if he is not himself a promoter of the company)." The author evidently thinks it is too much to ask of a promoting director to learn to know himself before he sets about alluring the public. There is a good little chapter on misrepresentation and fraud, but notwithstanding the learned author has read the celebrated decision of *Peek and Derry*, in the House of Lords, he states that a man is liable in damages for a statement made without reasonable grounds for believing it to be true, if it should turn out to be false. This was the very proposition the House of Lords affirmed was not law as we read the decision. The work has a second part dealing with mining interests. This contains a concise, and as far as we can ascertain, after critical examination, an accurate statement of the mining laws in Victoria and New South Wales, and should be of considerable use to persons here having to deal with papers affecting the title to mining property in those colonies. A chapter on banking companies, with copies of the schemes of reconstruction of many of the principal Australian banks, with others on creditors' remedies, reconstruction, and cognate matters, and an appendix, with some forms of returns, complete the work.

A BOOK FOR INTENDING EMIGRANTS.

Shall I Try Australia? By George L. James. (London: L. Upcott Gill, 170, Strand, W.C.)

Those about to emigrate to Australia will not be content with a knowledge, however complete and accurate, of the commercial prospects of the colony, but will naturally seek to have some insight into the modes of life and social characteristics of the people among whom they will have to dwell. Nor would the vivid, if brief, account of social Australia, which is among the most interesting of the "Souvenirs of Some Continents," and in which the graphic pen of the author of the "Franco-German War" lapses into a softer and easier style, supply exactly the information which is required. More useful, though less captivating, passages from daily life are what the adventurer about to leave his native land will require. He will naturally ask what he is to eat, how he is to be housed, and what sort of relaxations will be within his reach in the island continent. In such a case he would do well to consult Mr. George L. James's interesting and readable little book, and there he will find a graphic account of the country as it would present itself to the visitor rather than to the political economist. Mr. James has directed his attention to the matters affecting a man's comfort more than to those which concern his prosperity. Hotels, boarding houses, and restaurants, theatres and actors, rowing, fishing, boxing, and football—these are the subjects with which he has more particularly dealt. When commercial matters are touched upon—and our author by no means avoids them—they are rapidly and clearly sketched out in a few paragraphs, generally with a fairly good sense of proportion. For the rest, the style in which the book is written is a simple and interesting one, and lays the writer open to the imputation of having, at some time or another, walked in the ranks of journalism. While the book is just the thing for a departing emigrant, it will also lay the tourist under a great obligation. Evidently the writer has frequently travelled over the routes he so fully details, otherwise his descriptive passages could hardly be so vigorous and full. Perhaps the only part of the book against which objection can be taken is the arrangement which hardly seems to be welded into a settled plan, chapters having been put together as the various phases of his subject occur to the author. This style of writing has a certain charm about it which is a relief after the elaborate frameworks with which modern writers cumber a simple subject. Taken as a whole, the book is at once useful and readable, and all interested in our Australasian colonies would do well to read it.

INSURANCE DIRECTORY, REFERENCE, AND YEAR BOOK.—This unpretending booklet contains a very large mass of information in respect to the various insurance companies of the country, which, to some remotely connected with them, will be of interest, but which to others more nearly concerned is a positive necessity. Besides an elaborate table of statistics relating to most of the insurance companies in the world, there is a directory of directors, a synopsis of Acts of Parliament relating to companies, a dictionary of telegraphic addresses, and a budget of other figures and facts which it is difficult to specify in detail. Intending purchasers should not be misled by the modest and unpretending form given to the publication, for, in reality, it is highly useful, wonderfully complete, and in arrangement very convenient.

PUBLICATIONS RECEIVED.

In sending books for review publishers should state their price.

"The Story of Our Planet." (Illustrated.) By T. G. Bonney, LL.D., F.R.S., F.S.A., F.G.S., Professor of Geology in University College, London. (London: Cassell and Company, Limited.)

"Shareholders', Directors', and Voluntary Liquidators' Legal Companion." By Francis B. Palmer. Fourteenth Edition. (London: Stevens and Sons, Limited, 119 and 120, Chancery-lane. Price, 2s. 6d.

"The Engineering Magazine." March, 1894. European Edition. Price, 1s.

"Handbook of Gold Milling." By Henry Louis. (London: Macmillan and Co.) Price, 10s. net.

"Handbuch der Metallhüttenkunde." Von Dr. Carl Schnabel, Professor de Hüttenkunde und Chemischen Technologie an der Königlichen Berg-Akademie zu Clausthal. (Berlin: Verlag von Julius Springer).

"Cantor Lectures on the Art of Book and Newspaper Illustration." By Henry Blackburn. (London: William Trounce, 10, Gough Square, Fleet Street, E.C.) Price, 1s.

"Investors' and Shareholders' Guide." By J. D. Walker and Watson. (Edinburgh: E. and S. Livingstone.) Price, 5s. net.

"Lynn's Handbook for 1894-95." Capper and Newton.

"British Locomotives." Their History, Construction, and Modern Development. By C. J. Bowen Cooke. Second Edition, revised. (London: Whittaker and Co.).

"The Advertisers' A.B.C., 1894." (London: T. B. Brown, 161 and 163, Queen Victoria Street, E.C. Price, 10s. 6d.)

"The Board of Trade Journal." March, 1894.

"The Chairman's Handbook." By Sir Reginald F. D. Palgrave, K.C.B. Tenth edition, revised. (London: Sampson, Low, Marston and Co. Price, 2s.)

Smithsonian Institution. Annual Report.

Report of the Department of Public Works (New South Wales) for the year 1892.

The Journal of the Franklin Institute. March, 1894.

Transactions of the Manchester Geological Society.

THE DEMOLITION OF WORKS AND FURNACES.—Coal mining, as well as bad trade, is responsible for the demolition of many of our ironworks and blast furnaces. It is found that the coal underneath, if brought to the surface during periods of high prices, will yield more money than making finished iron or pig iron. The large parish of Tipton has suffered greatly from the demolition of works and furnaces. The Old Factory Works have just been demolished in order that the coal may be gotten; and the adjoining Coseley Moor furnaces have suffered the same fate. Both properties were built on valuable thick coal, now worth 10s. a ton. The Hope Iron and Sheet Works at Summerhill, in the same parish, after standing idle for two years, after repeated failures, are both to be knocked down by the auctioneer's hammer and sold for old iron. Many other cases might be mentioned of the demolition of works that had become historic in the annals of the local iron trade. The Chairman of the South Staffordshire Mines' Drainage Commissioners, when the other day referring to the leakage of canal water into the mines, said this would be to some extent remedied by the cutting off of old basins which formerly supplied works and furnaces, but which had become useless and leaky by non-use and non-repair, owing to the taking down of the works. In 1874, he said, there were 537 such basins in the Birmingham Canal, but that number had been reduced by 101. The basin mileage was 26 miles, or one-third of the whole length of the canal, which covers 76 miles. The abolition of 101 basins, each one serving a prosperous establishment, will furnish grave food for reflection for all interested in the local iron and coal trades.—*The Engineer and Iron Trades' Advertiser.*

WELSH TIN-PLATE TRADE.—The executive of the Welsh Tin-platers' Union have, it is stated, rejected the invitation from the masters' association to a conference to discuss the make question, declaring their determination to adhere to the union rules.

THE EDITOR'S LETTER BOX.

**** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the name and addresses of the senders, though these need not necessarily be published.*

GOLD MINING IN PAHANG.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—I was interested in reading the report of the Punjom Mine, in your issue of last Saturday, more especially as I paid the mine a visit in the year 1888, when operations were confined to developing two quartz reefs of immense size, one having a north and south strike, and the second east and west, thus forming a junction at a point that appeared to have been worked for a number of years prior to the works of the Punjom Company. From the large excavations and heaps of rocks in its vicinity, I saw some pannings made of the lode stuff that produced free gold, and I suggested that improved produce might be calculated on at a greater depth; and with this idea a shaft had been commenced near the junction of the reefs where I considered there was the probability of finding them more defined, and the gold more concentrated as depth was attained. The country rock was slate, that could be easily sunk through, so that the expense of sinking would not be great, and there was an abundance of timber on the company's concession for timbering the shaft and workings.

The mill had been re-erected, and there were twelve heads of stamps at work. Lines of tramway were laid down, and roads were being made, and bridges were in the process of formation, improving means of communication.

The mining operations were within an area of 1 square mile, and as the company possessed a block of ground of 100 square miles in extent, there then remained 99 square miles to be prospected. This locality appeared to be an extension of the same auriferous zone as the Batang Padang district of Perak, which I had visited previously.

Another gold mine worthy of mention is Raub (where success is attending the mining operations), which was then undeveloped. I mention this to show that where these important discoveries have been made, a process of development has been encouraged by results which should behove further development of gold discoveries on the Malay Peninsula, and owners of mining concessions will do well to develop the reefs as they are discovered, and endeavour to get a return while there is sufficient working capital, instead of spending the whole in making surface explorations.

In the year referred to, Punjom was the only quartz reef being developed by Europeans in the large tract of country extending from Singapore to China, but from some years of experience of that part of the world, and of gold mining districts in other parts of the world, I am of opinion that the two mines referrred to are not the only ones to which attention should be directed, and that a few years hence will witness other successes, for I am aware other discoveries have already been made requiring to be systematically mined, which is the only course to pursue to make a financial success of the companies that work them.

The facilities for working compare favourably with other gold mining districts, as transport of machinery is effected by river; and as the rivers are subject to tidal fluctuations, the loading and unloading of the machinery is consequently more easily performed than if there was no rise and fall of the tide near their outlets to the sea.

Labour is cheap, and although it is not skilled, the natives are capable of being taught, more especially the Chinese.

The same policy of developing discovered minerals has been advised by a well-known mining engineer (with whom I have conversed) for Borneo; and if his suggestions are adopted there remain the same chances of success. Too much money is frequently expended by mining companies in surface scratchings, while neglecting to open up reefs that exist within the limits of their concessions, frequently resulting disastrously. One good reef is worth to a mining company infinitely more than a large tract of land, and as all mining concessions do not contain reefs, is a reason why they should receive attention when discovered.

The development of gold discoveries on the Malay Peninsula and in Borneo is occupying the attention of interested individuals possessed of undeveloped property which, it may be hoped, will reward their exertions to endeavour to further discover what may possibly be awaiting revealment.—Yours truly,

London, March 14. J. H. HAMPTON.

GOLD EXTRACTION.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—I had come to the conclusion the subject had exhausted itself, but observing in your issue of the 10th another apparently joint attempt to bolster up Mr. Hannay's alleged inventions, I crave leave to again address you.

When I say joint endeavour, I do so sympathetically, since the reply principally refers to my letter of 17th February, which evidently at the time Mr. Cruickshank was unable or unwilling to tackle. I shall be brief, however, and will simply add that I am, in no sense whatever, pecuniarily interested in any gold extraction process under the sun, and do not intend to be, but I certainly am interested in rescuing the gold that is going to waste in some of our Colonial gold fields. I, therefore, am an advocate of a proven process such as the MacArthur-Forrest. However, I may state once and for all that I despair of Mr. Hannay's, and I fail to understand their tactics.

Mr. Cruickshank accuses me of being discourteous and unmanly over the interpretation of a French expression. In reply, I beg to refer him to his own allusions about some person I know nothing of, whom he seems to abuse for personal reasons—a matter outside the gold extraction question altogether, and beyond the pale of fair comment. What I and everyone else want is evidence of Messrs. Johnson and Matthey's tests extending over several months, and proof of the validity and commercial value of Mr. Hannay's alleged inventions. I again challenge him to produce the former and prove the latter, without which nothing can be established.

As to the responsibility of the article in the *African Review*, those who read closely can judge of the evidence, but to quote Mr. Cruickshank's own words in a former communication, I have information that will make their "hair" stand on end when I think fit to divulge it.

All the other assertions are, in my opinion, so rambling and inconsistent that I must decline to refer to them.

SCRUTATOR.

SUTHERLAND REEF, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Those who, after seeing the recent Press warning and timely exposure of the rig in these shares, buy them, will deserve no commiseration for the consequences of such abject folly. It pithily described it as a weak attempt to get up a deal in Mr.

Mockford's Sutherland Reefs, which, lately unsaleable at 3d. were marked up to 2s., but no genuine business was done. I further stated this rig is being continued by the aid of an outside broker, but no buyers were attracted; and it remarked that the market understands very well, and the public should know, that the sole object of the movement is to unload the enormous holdings of the promoters and their associates, on which is a 2s. 6d. liability, which may be called up at any time. It also stated the dealers are not anxious to "make prices" in the shares, as at any moment they may be almost unsaleable again. When described by a certain paper as "buyers at 2s. 4½d.," there were only buyers of 50 or 100 shares, and on the appearance of sellers the price quickly fell to 1s. 6d., though called 2s. by the paper referred to. It is not difficult to know who the so-called buyers were. Since then I have frequently found the quoted prices utterly fictitious. For instance, when quoted at 4s. 3d., 4s. 6d., a dealer's price was 3s. 3d. The same paper stated that no call would be made before April. Notice of two calls has since been given. In addition to a yearly rent of £960., the purchase price of this worthless property was £230,000; £45,000 has been spent on it without any result. By a reconstruction last year the shareholders incurred a liability of £38,000.

—Yours, faithfully, VIGILANT.

P.S.—The fact that there is not a single resident in South Africa registered as a shareholder in this company is ample proof of what is thought of the property by those in the best position to obtain reliable information, and to form an opinion.

[By an oversight last week we omitted the first portion of "Vigilant's" letter, which we now insert, together with a postcript since remitted to us by the writer. Readers will, of course, read the above in connection with the latter portion of the letter which appeared last week.—Ed. *M. J.*]

A PERTINENT QUESTION.

TO THE EDITOR OF "THE MINING JOURNAL."

Sir,—At the present price of tin and coal, is there a waste power that can be used to the advantage of mining? Can wind be employed by the aid of wind mills to pump water into large reservoirs on a high elevation?—thus, by hydraulic power to work electric machinery with profit and less cost? The cost, I take it, will be a first outlay in suitable plant and machinery, with very little expense afterwards. Say a mine costs £4000 in coals per annum, and this year after year; can this be obtained by the above method?—I am, yours truly,

A Constant Reader.

THE ASSOCIATED CHAMBERS OF COMMERCE.

MEETING IN LONDON.

The thirty-fourth annual meeting of the Associated Chambers of Commerce of the United Kingdom commenced on Tuesday, at the Hotel Metropole, Sir Albert R. Rollit, M.P., presiding. In the course of his opening address, the Chairman said that

Railway Reform,

first, for goods, and next for passengers, now became the primary and paramount duty of the Board of Trade, and it was, he ventured to suggest, useless and wrong for the President simply to point an injured trader to the remedy of costly litigation for breaches of the law, for refusals to dissect rates and charges, and the like. If it had the power, the Board of Trade must vindicate the law, as under the Railway Hours and the Merchandise Marks Acts, and, if it had not, the sooner it got and exercised it the better for the community and for trade.

The Coal Strike.

The dispute in the coal trade, following hard upon those in Lancashire and Hull, quickly arrested the little progress which figures had indicated; it affected all, and they our chief allied industries; it nearly ruined some railways, and seriously injured most of them, the returns for 1893 showing a decrease of more than a million and a-half, or 4 per cent., in goods traffic; and so great was its effect upon shipping, that during one week Hull exported no coal—a thing which had not happened for 50 years, and which, of course, meant the absence of return cargoes.

At Featherstone he was a witness of the sufferings and injury to the country caused by the calamitous conflict, which happily, and, perhaps, owing, in a measure, to the persistent appeals in Parliament, the Government at last, through Lord Rosebery's able mediation, did much to end. There was one substitute suggested for strikes and lock-outs which seemed to him even worse than the disease—he meant one of those gigantic "trusts" which, if they came to deal with the prime necessities of life, might become, both economically and socially, most dangerous monopolies, like those which, for the proper protection of the consumer, the Parliament of Elizabeth declared illegal by the statutes against engrossing. Were the choice, which it was not yet, between combinations of coal-owners and miners to artificially raise the price of fuel and

The Naturalisation of Mines,

he should choose the latter, of course on fair and just terms, which, however, neither the Trades Congress nor any legislator who had declared for nationalisation had yet formulated.

Much might be anticipated from next year's meeting at Brussels of the Union for the Protection of Industrial Property, when important questions as to patents, trade marks, and indications of origin were to be discussed. There was, too, some demand for inquiry at home as to the effect of the Merchandise Marks Acts, and the wisdom or otherwise of their extension; and, as a member of the former committee, he ventured to think there were grounds for examining the operation and consequences of these and some similar measures.

Mr. Mundella spoke strongly in favour of technical and scientific education, and urged the importance of better relations existing between capital and labour, and the formation of boards of conciliation, with a view to the establishment of industrial peace. Upon these things rested England's supremacy.

Railway Extension.

Resolutions were passed calling for, on the report of the Select Committee on Railway Rates, speedy and effective legislation on a subject of the most vital importance to both home and foreign trade, and urging the Government of India to extend the railways in India and Burma.

Merchandise Marks.

Mr. Herbert Hughes, of Sheffield, moved a resolution urging on the Government the desirability of securing some approach to a common definition of a trade mark by all countries in which the registration of trade marks is in force.

This was seconded by Mr. Evans Jackson, of the London Chamber.

Mr. Frank Safford, speaking in support, on behalf of the London Chamber of Commerce, said it was somewhat remarkable that although most nations were agreed that the object and meaning of a trade mark was to indicate that the goods were either the manufacture or the merchandise of the owner of the mark, no attempt had been made to define a trade mark. France, indeed, kept trade marks of the manufacturer distinct from those of the merchant, but other countries, as a rule, permitted the use in the alternative meaning as in this country. Any definition for international use must be wide and comprehensive. The Legislature in this country took, as compared with most other countries, a narrow and restricted view of what marks may be admitted for registration as trade marks. The result was that although we had entered into an international agreement on the subject, our law was unable to give effect to it in our courts. The London Chamber had prepared a bill codifying the law of trade marks, in which a more common sense view of the matter was taken, and one more in accord with the prevailing sense of other countries.

COMPANIES AND THEIR DOINGS.

Reports, Balance Sheets, Dividends, &c., of Mining, Railway, Banking, and other Companies.

MINING COMPANIES.

The Mysore Gold Mining Company.

The directors' report states that the income on revenue account for the twelve months amounted to £254,549 0s. 11d.; the sum of £254,311 9s. 8d. being realised for the gold produced, and the balance of £237 11s. 3d. received from other sources. The expenditure on revenue account for the year was £117,531 9s. 8d., and the royalty on gold amounted to £12,580 8s. 9d., together £130,111 18s. 5d., which sum has been charged against income, leaving a profit on the year's working of £124,437 2s. 6d. To this latter amount the balance of £474 16s. 5d. brought forward from 1892, and the profit of £7642 7s. 1d. on the sale of 10,000 shares of the Champion Reef Company have been added, making a total disposable sum of £132,554 6s. The balance carried forward is £38,283 2s. 5d., after paying two interim dividends at the rate of 3s. 6d. per share each; writing off for depreciation of machinery and plant, £4117 12s. 6d.; income tax, £4202 12s. 6d.; carried to sinking fund, £5000; and expenses in connection with registration and issue of new capital and sale of Champion Reef shares, £835 13s. 11d. Out of this balance a further dividend of 3s. per share has been declared, payable on 14th instant, which will absorb £37,341, leaving in hand £942 2s. 5d. The amount divided amongst the shareholders out of the profits for 1893 was at the rate of 10s. per share, or a total of £117,456 4s. 8d. The amount spent on capital account during the period under review was £21,213 12s. 7d., or £12.874 4s. less than in the previous year. This expenditure was incurred as follows:—Buildings, tanks, &c., £4917 13s. 9d.; machinery and plant, including air compressing machinery, boilers, rock drills, &c., £11,761 8s. 11d.; expenditure on new work and the development of Glen section, Ribblesdale's shaft, Eastern Prospect shaft, &c., £4534 9s. 11d. The directors have placed a further sum of £5000 to the sinking fund out of profit, thus bringing up that fund to £40,000. Summary of work executed:—Levels and crosscuts driven 6041 feet 5 inches; rising 1031 feet; sinking (shafts and winzes) 1276 feet 3 inches; ground excavated by stoping 3135 fathoms 5 feet 6 inches. In carrying out this work important discoveries have been made, notably the new shoot intersected by Rowse's shaft, the lode met with in the 620 level north of Rowse's shaft, and the improvement in Tennant's shaft and the 520 level north of it. Besides these, the old shoot has been intersected by the 1160 and 1260 levels north of Rowse's shaft. With reference to the new shoot discovered by the sinking of Rowse's shaft, at the depth of 1260 feet, it was proved to be about 135 feet in length, when in driving south the lode became disturbed by a fold. For this distance the lode averaged about 2 feet 6 inches in width, with an average assay of 2 ounces per ton. In May last a rise was started in the back of the 1260 level 44 feet south of the shaft, and at the 31st December it had been put up 217 feet 6 inches in a fine lode for the whole distance, averaging in width 3 feet 10 inches, and giving by assay an average of 2 ounces 19 dwts. 3 grains per ton. To still further prove this shoot the 1160 level is now being driven south of Rowse's shaft. The northern extension of it has not yet been proved below the 1260 level. The discovery at the 620 north of Rowse's shaft was announced by cablegram on 1st August last. The lode was intersected by a crosscut driven 113 feet east of the main level, 466 feet north from the shaft, and when first met with was 8 feet wide, assaying 3 ounces 10 dwts. per ton. The directors wish to draw special attention to the great width of the main pay shoot as seen in the 1160 and 1260 levels north of Rowse's shaft, Whilst in driving these levels the lode appeared to be only of the usual size, it has subsequently been proved by stoping that only a portion of it was carried, and that the actual width is 8 to 10 feet. At Schaw's the operations of the past year have been attended with greater success than hitherto; although no pay shoot of great length has been met with, at several points valuable quartz has been discovered, and the indications are such as to lead the directors to hope for still further improvement. The directors desire to assure the shareholders that every possible economy is being exercised, consistent with the efficient working of the property, and in view of the new railway to the mines being opened for traffic, the favourable contract for explosives they have been enabled to make, and the reduction in the administration expenses, the board are hopeful that for the current year a further diminution in the costs per ton will be shown.

The Nundydroog Company.

The report of the directors of the Nundydroog Company (Limited) states that the gold sales for the year realised the sum of £103,107 13s. 2d., and the receipts from other sources amounted to £549 18s. 6d., together representing a total of £103,657 11s. 8d. The revenue expenditure in India and England was £60,604 15s. 8d., and the royalty on gold £5123 4s. 3d., the profit on the year's working, therefore, amounted to £37,929 11s. 9d., which has been carried to the profit and loss account, and dealt with as follows:—Interim dividend of 1s. 6d. per share paid 4th August, 1893, £14,998 7s.; income-tax, £1383 7s. 6d.; written off for depreciation of machinery and plant, £1273 4s. 11d.; preliminary expenses, £1788 18s. 10d.; carried to reserve fund, £500; unproductive expenditure for 1893 written off, £5760 1s. 7d.; balance to carry forward, £12,225 11s. 11d. Out of this balance a further dividend of 1s. per share on the fully-paid shares, and 5d. per share on the partly-paid shares, has been declared, payable on the 20th March, 1894. This will absorb £10,841 18s., leaving a balance in hand of £1383 13s. 11d. The dividends for the year amounted to 2s. 6d. per share on the fully-paid shares, and 5d. per share on the partly-paid shares, representing a total distribution of £25,840 5s. The revenue expenditure for the year amounted to £60,604 15s. 8d., as against £44,631 7s. 8d. in 1892. This increase was brought about by the larger quantity of quartz raised and milled and tailings treated, being 7584 tons and 1039 tons respectively. The sum of £13,796 10s. 2d. has been expended on capital account during the year; the value of the inventory of buildings, machinery and plant has, therefore, been increased by that amount. In addition to the foregoing, the sum of £5763 1s. 7d. was spent on the development of the property, the whole of which is written off the profit and loss account. All the preliminary expenses attendant upon the reconstruction of the company have also been charged against profit and loss, and that the sum of £500 has been placed to the reserve fund. The total revenue costs in India and England, including the treatment of tailings amounted to £2 7s. per ton, or 2s. 1d. per ton less than the year previous. With the expenditure on the treatment of tailings omitted, the cost per ton of quartz was £2 4s. 10d. The directors have not yet ordered further tailings plant, as they propose before doing so to await the result of the trial it is understood, the Mysore Company is about to make of the MacArthur-Forrest process. There is a large accumulation of tailings on the mines, and immediately the board are in a position to determine which is the most suitable process, the plant will be ordered.

The Palmarejo Mining Company (Limited).

The following circular, signed by Messrs. Milward and Co., solicitors for the plaintiff in the action of Hart v. Bryce, and others, has been addressed to the shareholders:—"With reference to the circular issued by or on behalf of Messrs. Seward Brice and Pleydell Bouverie, as trustees of the first debentures of the Palmarejo Company, summoning a meeting for Friday the 16th, and enclosing a proxy for your signature, such meeting being called for the purpose of approving of the accounts of the trustees, and of making certain alterations in the trust deeds, we are directed to inform you that an action is now pending in the Chancery Division against Messrs. Brice and Bouverie, and the Palmarejo Company, and the Mexican Explorations (Limited), having for its object the taking and vouching of the accounts of the trustees by the Court, and an enquiry whether the trust deeds are framed in accordance with the terms of issue of the debentures, and also whether the money received from the issue of the debentures has been applied in accordance with the objects stated in the prospectus. The action also asks for an injunction to restrain the defendants from enforcing any terms and conditions of the deeds, which are contrary to the terms of the prospectus. The circulars convening the meeting for Friday, which have been forwarded to you, contain no reference to these proceedings, and nothing which would lead the debenture holders to suppose that they are now pending. Under these circumstances, we are directed to submit to the debenture holders that it is not only very much against their interest that any accounts should be passed or resolutions arrived at with reference to the terms of the debenture trust deeds, whilst these matters are under judicial consideration, but that it must be very much to their prejudice to assent to any proposal, which will have the effect of releasing the Mexican Explorations (Limited) from the guarantee given by them for the principal and interest of the debentures. We have, therefore, to ask that if you attend the meeting you will either abstain from approving of the accounts or passing the proposed resolutions until the Court has had an opportunity of considering the questions to be submitted to it, and that if you have already forwarded the proxy enclosed with the circular you will write to the secretary, by the first post, withdrawing such proxy."

The Geldenhuis Estate and Gold Mining Company.

The directors' report for January states:—"Quartz mined, 10,395 tons of 2000 lbs.; milled (80 heads), 10,270 tons of 2000 lbs.; yield in smelted gold, 3481·3 ounces, valued £12,706 15s.; concentrates sold, say, 192 ounces, valued £432, Total 3673·3 ounces, valued £13,138 15s. Profit for month £2647 17s. 9d.—Capital Account: Expended on machinery, new shafts, &c., £11,123 0s. 8d.; driven and sunk, 82½ feet. The hauling engine for new incline shaft will be shipped from London early next month. No suitable engine to use could be obtained here temporarily."

— The returns of revenue and expenditure for January, 1894, of the Johannesburg Pioneer Gold Mining Company (Limited) are as follows:—Quartz on hand January 1, 1452 tons; quartz mined and hauled during January, 1600 tons; quartz milled, 1600 tons; tonnage on hand, 1st February, 1452 tons; yield of smelted gold, 786 ounces; yield per ton, 9·82 dwts.; 786 ounces from battery, estimated at £2714 7s. 8d.; 12 tons, 1238 lbs. concentrates, realised £257 9s. 5d.; tailings from mill, 1048·4-7 tons, realised £247 19s. 11d.; total, £3219 17s.; cost of production per ton, £1 11s. 3·76d.; profit on this month's operations, £719 17s. 5d.; expended on permanent works, £612 16s. 5d.; other expenditure, £1389 3s. 3d.

— The directors' report of the New Rietfontein Estate Gold Mines (Limited) states: Mine sunk, driven, and raised 501 feet 6 inches. Ore mined 2433 tons. Mill: 25 stamps working 30 days (24 hours) crushed 2433 tons, yielding in smelted gold 1946 ounces 12 dwts. Yield by amalgamation 16·001 dwts. per ton. —Cyanide Works: Tailings treated 1997 tons. Yield in smelted gold 840 ounces 15 dwts., assay value per ton 8 dwts. 8·05 grains —Concentrates: Treated 21½ tons. Yielded in smelted gold 61 ounces 1 dwt. 14 grains; per ton 2 ounces 16 dwts. 18 grains. Total profit £3597 1s. 6d. —Total expenditure for month: Revenue account £4460 19s. 10d., capital account £2311 8s. 10d.

— At an extraordinary general meeting of the Henry Nourse Gold Mining Company (Limited), held at Johannesburg on March 7 last, it was decided to increase the capital of the company to £125,000 by the issue of 25,000 new shares of the nominal value of £1 each, to be issued at £1 premium to registered shareholders *pro rata* in the proportion of one new share for every four shares held by them, the issue being guaranteed at 40s. per share.

— The Springdale Gold Mining and Milling Company of Denver, Colorado, U.S.A.—Instructions from Denver have been received to announce a further interim dividend at the rate of 16⅔ per cent. per annum, being 2d. per share, for the three months ended February 28. Holders of shares are requested to forward the same to the London agent, 20, Abchurch-lane, E.C., for endorsement and receipt of dividend on and after Tuesday, the 13th inst.

— The report of the directors of North's Navigation Collieries (1889) (Limited), made up to December 30, 1893, states that the net profits for the year were £29,903, to which has to be added the sum brought forward from the previous year, making £30,645. An interim dividend of £2500 on the preference shares has been paid, leaving £28,145 for disposal. The directors recommend that a further dividend of 5 per cent. be paid on the preference shares, and a dividend of 5 per cent. on the ordinary shares, making 10 per cent. and 5 per cent. per annum on preference and ordinary shares respectively, and that £4000 be applied towards improving the properties, and that £1645 be carried forward to next account.

— The directors of the South African Gold Trust and Agency Company (Limited), at a meeting held this week, decided to recommend to the shareholders a dividend of 10 per cent. on the ordinary shares, and 5s. 3d. on the founder's shares, for the year ending December 31, 1893, subject to audit.

— At an extraordinary general meeting of the shareholders of the HENRY NOURSE GOLD MINING COMPANY (LIMITED), held at Johannesburg on 7th March last, it was decided to increase the capital of the company to £125,000, by the issue of 25,000 new shares of the nominal value of £1 each, to be issued at £1 premium to registered shareholders *pro rata*, in the proportion of one new share for every four shares held by them, the issue being guaranteed at 40s. per share.

— The BAKER'S CREEK GOLD MINING COMPANY state that cable advice has been received from Adelaide that a further dividend of 1s. per share has been declared, payable there on March 30.

— The directors of the MAID OF ERIN SILVER MINES COMPANY have declared a dividend of 4 cents. per share payable at once.

— The BAYLEY'S REWARD CLAIM GOLD MINING COMPANY (LIMITED), Joolgardie, Western Australia, have made arrangements to open a London office and register at No. 2, Metal Exchange-buildings, Leadenhall-street, E.C.

— The OURO PRETO GOLD MINES OF BRAZIL (LIMITED) has sold the gold obtained in January for £3820 19s.

— The registered offices of the following companies are now at No. 85, Gracechurch-street:—The Balkis Eersteling Company (Limited), the Balkis Land Company (Limited), the British and Transvaal Financial Company (Limited), Graskop (Limited), the Marabees (Transvaal) Land Company (Limited), and the Sheba Lode Exploration (Limited).

— The RIO TINTO COMPANY announce the payment of the drawn bonds of their 5 per cent. issue of 1880, and coupons on their 5 per cent. issue of 1880, 1884, and 1892, due 1st prox. They invite holders to present coupons and drawn bonds at once.

— The MOZAMBIQUE COMPANY announce that their revenue for the month of October, derived from customs, land concessions, licences, and other miscellaneous sources, amounted to £3887 8s., showing an increase of £489 2s. 3d. upon the previous month.

— The secretary of the ISLE OF MAN MINING COMPANY (LIMITED) sold on March 12, 100 tons of this company's ore at £7 2s. 6d. per ton.

— The directors of the LONDON AND SOUTH AFRICAN EXPLORATION COMPANY (LIMITED) have declared a dividend of 3s. per share, less income tax, for the quarter ending the 31st inst., payable on and after that date.

MINING NOTES.

HOME, COLONIAL, AND FOREIGN.

TELEGRAPHIC advices received from Johannesburg by the Union Steamship Company (Limited) state that the gold crushings on the Witwatersrandt fields for the month of February realised 151,870 ounces. The following table, taken from the circular issued by the mining department of the South African Trust and Finance Company (Limited), gives the crushings to date.

	1889	1890	1891	1892	1893	1894
	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.
January..	25,505 12	15,006 15	53,205 8	84,560 8	108,374 0	149,814 0
February.	22,456 18	16,887 5	50,079 2	86,649 8	193,252 0	151,870 0
March.....	37,919 0	37,780 2	52,949 1	93,244 11	121,474 0	—
April	27,028 1c	38,686 19	55,371 16	95,582 6	122,053 0	—
May.....	35,028 7	38,836 5½	54,673 1	99,436 6	116,911 0	—
June	30,877 13	37,419 10	56,861 1	103,252 3	122,507 0	—
July.....	31,091 2	39,455 14	54,924 1[illegible]	110,479 1	126,169 0	—
August ...	30,519 14	42,263 11	59,07[illegible] 4	102,322 3	136,069 0	—
September	34,143 10	45,485 19	65,601 15½	107,85 13	129,585 0	—
October ...	32,214 6	45,248 17	72,793 8	112,167 8	138,599 0	—
November	33,731 16	46,782 18	73,393 15	106,794 15	138,640 0	—
December	39,050 11	50,352 5	80,312 11	117,748 17	146,357 0	—
	369,557 5	494,817 0½	729,237 12½	1,210,853 16	1,473,473 0	301,684 0

The amount of gold produced in the year 1887 was 23,155 ounces 8 dwts. Complete monthly totals were not recorded in that year. The output for February is the largest yet recorded, exceeding the January output, the previous record, by 2056 ounces. The total output to date is 453,534 ounces.

MANY of our readers will be pleased to hear that Mr. Edmund Spargo, M.E., F.G.S., &c., of Liverpool, who has been unable, owing to an accident, to undertake any professional commissions since September last, has now so far recovered as to resume his usual professional inspections of mines and mineral estates, his first commission, through Mr. R. B. Fastnedge, being from the directors of the well-known Great Work Tin Mines, Cornwall, to examine and make an exhaustive report on those mines so far as the present state of the extensive and ancient workings will permit of, for which purpose we understand he left town yesterday. He has also, we learn, been commissioned by a gentleman occupying a high position under the British Government in Hungary to examine and report on some extensive coal mines and lithographic stone quarries in that country, and before his return some petroleum oil wells in Roumania will be investigated by him.

NEWS was received by cable, on Wednesday, from Johannesburg that the new 120 stamp mill supplied by Fraser and Chalmers to the Crown Reef Company had been started, and that crushing was going on very satisfactorily. The telegram adds that over 600 tons per day were being crushed by the new stamps, or at the rate of 18,000 tons per month—the largest output yet known on the Rand per stamp, being at the rate of 5 tons per head. As the cyanide works on this mine are complete, and capable of treating all the tailings from the mill, it is anticipated that during the present month of 31 days the yield of gold will exceed 12,000 ounces, with proportionate profits.

A GREAT deal of interest, says the *Financial News* correspondent, has of late centred in the Roodeport district. Whilst the tributers of the Banket Company's mine have been compelled by reason of insufficient development to refrain from further operations, the prospects of other properties in that part of the Rand are certainly assuming a brighter hue. The Roodepoort United Main Reef Company, for instance, has now its rock drills and cyanide works in full swing, and made a profit of about £1400 last month, the yield of the ore increasing from about 5 dwts. to 8 dwts. Increased profits may, no doubt, be looked forward to, thus enabling the company before long to enter the list of dividend-paying concerns. The neighbouring Princess Estate and Gold Mining Company, which has evidently in former years been little looked after, resulting from an erroneous method of working the narrow but very rich reefs, has since July last displayed great activity. Development by means of rock drills has been pushed on since January, the surface works have been thoroughly overhauled and added to, and the management was enabled to restart the mill at the turn of the year. At present only 20 stamps are at work, but since the grade of ore is a better one than formerly, and will further improve, the results are satisfactory. Cyanide works are in course of erection, and may be expected to be at work at the end of March or thereabouts, and they will, no doubt, tend to increase the prosperity of this company.

THE local board of the Durban-Roodepoort Gold Mining Company, which has always done so well for the company, has advised the European board to decide upon the erection of a new battery of 60 heavy stamps, after the completion of which it is intended to dismantle the old battery, which is situated a long way away from the mine. I have been informed that the work will soon be taken in hand, and further progress in the operations of this well-managed mine may be looked for with certainty. The third level of the Henry Nourse is opening up well. The mine requires further equipment, and it is intended to increase the capital by 25,000 shares in order to provide funds for the erection of a new 40 stamp mill, while rock drills and a cyanide plant will also be provided. The company has, meanwhile, discharged its debts out of profits earned, and it is only reasonable to assume that regular dividends may be looked for as soon as the new machinery has had time to exert its influence on the earning powers of the company.

THE new 120 stamp battery of the Crown Reef Company is so far advanced that it may be expected to begin milling during next month, and it will be interesting to see whether the expectations cherished will be fulfilled. The Paarl Central Company has commenced milling operations, and I hear results are, so far, satisfactory. The interest in deep level properties has been revived during the week by the changing hands of a big block of 177 claims south of the Simmer and Jack, and adjoining the Geldenhuis Deep and Rand Victoria Mines. The Gold Fields of South Africa was the purchaser, and it is reported that £56,000 in cash was paid for the block, which is, undoubtedly, of great value. Naturally, a great deal of money will have to be spent in the opening up of the ground, since the reef can only be expected to be intersected at a considerable depth; but, as the ground has been proved partly by the borehole of the Rand Victoria Mines, and at the some distance by the shaft of the Geldenhuis Deep, the acquisition is sure to yield handsome returns when the contents of the reefs are brought to the surface. Notwithstanding the still-continuing depression, activity is displayed by peggers along the line of reef, though at a good distance from the outcrop. Various capitalists, especially the Gold Fields of South Africa Company, have lately purchased claims in various positions.

DR. SELWYN, director of the Canadian Geological Survey, and who, as the incumbent of a similar position in Victoria, had plenty of chances for observation, suggested, says the *Daily Chronicle*, that gold nuggets grow in alluvial deposits by the deposition of gold upon their surface. A like view has been advocated by other geologists and chemists, though opposed by the undoubted fact that all the gold in placers arrived there by the disintegration of quartz, in which it was originally contained. This also is the argument of Professor Liversidge, of Sydney, who after many experiments has come to the conclusion that though large nuggets may be artifically produced, those found in alluvial deposits have been found in reefs, and have obtained their rounded shape by attrition. Any small addition of gold they may have received from "meteoric water" has been quite immaterial. As nothing is more common than to find bits of quartz attached to nuggets, it is not easy to hold any other opinion.

THE Botanie Creek Gold Mining Company, British Columbia, has lately commenced operations again on its property on the Thompson River. Mr. R. C. Campbell-Johnston has been appointed consulting engineer to the company, and is laying out the plans of working. The property lies on the north west bank of the Thompson River and east of Botanie Creek, and can be seen from the railway about two miles east of Lytton. A thorough system of prospecting was undertaken last summer, and the existence of an old bed of the Thompson River proved to exist, which runs into the present bed nearly at right angles at the lower end. To tap this old bed of the river drifts are being run, and pay gravel on bed rock has already been taken out yielding $8 to the yard. The company have completed a house recently, capable of accommodating a large number of men, and contemplate placing a winch cable and boat across the river to facilitate communication.

AN English expert, who spent the whole of last summer in studying the department of mines and mining at the Chicago Exhibition, has recently declared that when the Americans add to their cleverness in the economy of their one costly element —labour—the scientific mastery of the Germans in saving fuel and subsidiary products in coking, roasting, and smelting operations, they will control the market price of iron and steel throughout the world. At present he says that the Americans secure high average production in many of their best establishments, but this is done at the cost of what Europeans consider an undue consumption of fuel.

A PATENT has been taken out in England for a new twin cam. This cam is one invented by Mr. John C. Hart, the manager of the New Aurora West Company at Johannesburg. Its essential feature is that whereas the cam usually in use at the present time exerts its lifting power only on one side of the stem, the new twin cam lifts on both sides, it being in appearance what its name indicates, a double cam. As it is desirable that the stamper should be turned partly round at each lift, the arm of the cam on one side is made a little longer than the arm on the other side, the elongated part being wider, and of circular curvature struck from the centre of the shaft.

THE Duke of Sutherland's gold fields, which are in the parish of Kildonan, near the river Helmsdale, are to be opened soon, says *The Wolverhampton Chronicle*. They were first discovered, at least in modern times, in 1869. The discoverer was a local man, Mr. R. N. Gilchrist, who had spent some years in Australia. On Mr. Gilchrist's representation, the late Duke of Sutherland at once issued licenses to dig; and, as a result, about £12,000 worth of gold was found in three summers. But as the Duke received only £1 per month for each of the two or three hundred licenses which were required, and as he had out of that sum to compensate the sheep farmers of the district, he found the enterprise unprofitable, and suddenly abandoned it.

THE New Unified Main Reef property, according to a Rand mining engineer, has the worst surface arrangements of any mine in the district, and £7000 is wanted for new hauling gear. Development is in a very backward state, and, in order to set things right, the mill should be shut down, and development work carried on for nine months. This would mean that the company would have to raise £20,000 to put things into shape. The south reef at the west end of the mine is 1 foot wide, is very rich, and is the only hope of the property.

COPPER is said to be the principal metal near Pietermaritzburg. The ore found is mostly fine-grained sandstone, the grains being cemented together by copper pyrites. On one of these lodes it is estimated there could be put out £500 worth of ore per month at 24 hours' notice, with an outlay of not over £100 for tools and labour, and this could be largely increased. The ore would, of course, have to be concentrated for shipment, crushed between rollers, and put through a jigger.

ACCORDING to the *Polytechnisches Notizblatt*, articles of steel and iron can be protected against rust by coating them electrolytically with peroxide of lead. A satisfactory coating can, it is said, be obtained in 20 minutes, and is perfectly proof against atmospheric influences. As the whole operation is conducted at ordinary temperature, the temper of steel articles is unaffected by it.

WE understand, says the *Indian Engineer*, that Dr. King's examination of the Wunthoo gold fields has satisfied him that reefs would not, in all probability, repay the cost of working. It is surprising that the people who have been spending money up there in prospecting operations cannot see what a much better field they would have if they went over to the Mysore fields.

THE African Gold Recovery Company (Limited) announce that 44,500 ounces of gold have been recovered at the Randt and 7000 ounces in other districts; total, 51,500 ounces during February, by means of their MacArthur-Forrest cyanide process, being over 29 per cent. of the Randt output for February. The January total was 51,000 ounces.

IT is probable that the East Roodepoort Company will be amalgamated with the Durban-Roodepoort Company, which is also reported to be about to absorb the Roodepoort United Main Reef Company's property.

THE south reef on the west boundary of the Kimberley-Roodepoort Mine is rich and payable; and, although the property is for the present "rooted out," it should, after 12 months' development, show profitable returns.

A TELEGRAM was received in London on Monday from Cape Town, stating that a rich alluvial discovery of gold has been made in the Mazoe district. There have also been some rich finds in the head waters of the Lundi river.

A TWO-FEET reef, panning 15 dwts. per ton, has been discovered on the Alexandra Estate Company's eastern mynpacht. A 10-stamp battery will probably be started on this reef, and the cost of mining and working will probably be very low.

COAL has been discovered near the Durban-Roodepoort property, but the seam is a small one.

THE property of the Mulders Farm Gold Mining Company is about to be absorbed by the Orion Gold Mining Company,

THE following are the gold statistics for the Bendigo and Ballarat districts for the fortnight ending to-day:—Bendigo—total yield 6610 ounces; dividends declared, £1400. Ballarat—total yield, 6986 ounces; dividends declared, £5075.

THE PROPOSED FORTH AND CLYDE SHIP CANAL.—The following circular has been issued by the Edinburgh Merchants' Association:—"For a number of years a project has been before the public to connect the East and West Coasts of Scotland by means of a waterway sufficient to carry the largest ocean steamers and vessels of the Royal Navy, and it has met with universal approval. The advantages to the mercantile community, and the security in the event of war such a canal would afford, are so evident that the association we represent consider it unnecessary here to do more than lay before you the suggestion after-mentioned; and we respectfully request your cordial support and co-operation in carrying it to a successful issue. The association feel the more confident in making this suggestion in view of the recent successful opening of the Manchester Ship Canal. The members of our association are of opinion that the time has now come when the matter should be pushed forward, and it is proposed that a meeting should be held in Edinburgh in April next, at which time there would be in the city a large number of representatives from various municipalities in Scotland. Invitations have been sent to all the Chambers of Commerce and Town Councils of the cities and burghs, and others likely to be interested in the scheme, requesting each to send three representatives to the meeting."

SPITZKOP.—Manager's report for week ending 10th February: 10 stamper mill worked 72 hours. Crushed 90 tons of surface quartz. The plates are looking about the same as usual.—Reef Hill: Stripping, breaking out, and hauling as usual.—Hydraulic: Two monitors worked 5½ days each, or one of 66 hours and one of 61½ hours during the week; 4½ hours were lost in altering the pipe line. The ground in the face has not been so hard. There is about 14 feet of wash now. Manager goes on to say, in his opinion, the report is very satisfactory, as a great improvement has taken place in the thickness of the wash.

NEW ISSUE.

THE SOMERSET PETROLEUM WELLS (LIMITED).

THE capital of this company is £60,000, divided into 60,000 shares of £1 each, 20,000 of which, fully paid up, will be allotted to the vendors in part payment for the transfer of their rights. The balance of 40,000 are now offered for subscription, payable 10s. on application and 10s. on allotment. As the title indicates, the object of the company is to acquire the benefit of a license and agreement for a lease dated 21st February, 1894, to search for and work petroleum oil on the Ashwick Estate, near Shepton Mallet, Somersetshire.

"The remarkable fact of the existence of petroleum under this estate has been proved beyond doubt," says the prospectus, "by a discovery made by Dr. Wade, then resident at Ashwick Court, who, for the last two years, has been inconvenienced by the occurrence of a taste of petroleum in the water of the well on his premises. It appears that some time ago, immediately after a slight shock of earthquake had passed over this neighbourhood, his servant, who filled a saucepan from the well to boil potatoes, discovered the pan to contain a large amount of oil, and acquainted Dr. Wade with the fact, when he caused the well to be pumped, and found a large quantity of petroleum had exuded from the bottom of the well. Dr. Wade stated that he filled seven or eight 40-gallon casks with the oil obtained, which he used in his household for burning in his lamps, after roughly filtering the same, the oil producing a bright white light.

Specimens of the oil have been examined by Mr. Boverton Redwood, who pronounces it to be petroleum of an excellent quality, with a specific gravity of ·816 at 60 deg. Fahrenheit and a flashing point of 175 deg. Fahrenheit by the closed test. The discovery of such petroleum in Great Britain is a circumstance of special interest and importance, and what makes this discovery of great importance and interest is the fact that while there have been many finds of petroleum oil throughout Great Britain during this century, nothing at all resembling the Ashwick oil, either in pureness or quality, has ever been found, excepting that lately found in Wales."

In the present and previous numbers of *The Mining Journal* we have given such prominence to this discovery, editorially and otherwise, that no comment in this notice upon the importance of the discovery and its possible future effect, is needed. There seems to be every likelihood that the undertaking will be favourably viewed by investors, and that the company will be successfully floated.

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R. C. CHAMBERS, Manager Ontario Mine, Utah.
WILLIAM C. RALSTON, Secretary (Secretary California Miners Association).
BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).
HEAD OFFICE — MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights ON COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.

It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate transaction.

The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.

The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.

It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work.

This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).

Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.

We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.

Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company. Abstracts of such reports with prices of mines will be furnished pon application.

California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abundant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.

This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "CHAPIN," San Francisco.

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LONDON: MARCH 17, 1894.

FINANCE AND MINING.

THE unduly low values of mining shares can only be looked upon as an inconsistent feature of the metalliferous industry, of which the internal conditions would certainly seem to justify a more active demand for such classes of scrip. In every branch of the metal markets prospects are being brightened by the exhaustion of stocks through the weeding out of the weaker sources of production; yet mines which are known to possess every possible constituent of staying power are being passed over by investors. In gold mining the economies that are now effected in the cost of production open up possibilities of profit in directions where a little while ago enterprise would have seemed hopeless. Yet there is no disposition, or, at all events, very little, to buy gold mining shares at their present low values, and for South African scrip, notwithstanding the output of nearly 152,000 ounces during February, there is no sustained activity of demand. This increase of 2062 ounces upon the previous month is, considering that February was the shorter by three days, a really remarkable result, and there is every reason to believe that there will be some striking additions to production in the early future. But notwithstanding this favourable position of South African mines there is, outside a few properties, very little real movement in Randt shares. The mining market, as a whole, would seem at the present moment to offer the most tempting of opportunities to what may be called *bond fide* speculators—that is to say, those who buy shares when they are unreasonably depressed, and sell them when the market appears to allow of the greatest amount of profit. There can be no doubt, however, that the Randt shares, "gilt-edged" and others, will before long form the subject of a brisk upward movement, and, what is more, we believe that nearly all the existing mines will develop into successful and remunerative undertakings. Advantage of the present indifference of the mining speculator is being taken by little syndicates and groups of financiers who can foresee an improvement in South African mines, but it is a pity that the outside public will persist in waiting so helplessly for some pronounced activity in certain sections of the share market. The investor who possesses a due proportion of knowledge and foresight has undoubtedly every temptation to make a profit out of an industry whose position is quite inconsistent with the many advances that have recently taken place in mining methods. The progress of auriferous mining has made quite a sensible impression upon some of the foreign exchanges, where this class of investment has, during the past few years, been looked upon with suspicion. As the result of the heavy output in the Transvaal, an enquiry is being made into the position of the South African mines, and foreign investors have learned to discriminate between the companies now at work on the Randt and those that, in consequence of an imperfect knowledge of the character of the deposits, failed so disastrously. It is now recognised that the collapse of gold mining in the Transvaal a few years ago was due to financial causes rather than to any defect or failure in the gold supply. Consequently, foreign investors are beginning to pay more attention to gold mining properties at the same time that they are determined to protect themselves, as much as possible, from financial and speculative dangers.

There is no doubt that mining would have recovered long ago had it not been obliged to bear the load of a general depression, due to causes entirely outside of its own limits. While auriferous and other mines are regarded as a speculation upon which to risk only surplus capital, we must await an amelioration of the general financial position before we can expect to see an upward movement in mining shares. Everyone who is at all interested in the prosperity of mining must, therefore, watch with some degree of anxiety the industrial revival which seems now to be upon the point of taking place. Until a considerable increase in the world's output of gold corrects in some measure the discrepancy that exists between the yellow metal and silver, it is not easy to see how we can look forward to any revival of activity in other branches of mining. While the silver incubus weighs so heavily upon industrial enterprise generally, it cannot be expected that investors will sink their money in undertakings that are especially affected by this evil. The chief drawback in copper mining is that the depreciation of silver has deprived the majority of the copper companies of their principal sources of revenue, and it is certain that until the collapse of the white metal many concerns were able to continue their operations merely for the sake of the profit which they secured upon the bye-product. Notwithstanding this difficulty of making copper mines pay, the position is now much more satisfactory than it has been for a long while past. With the restriction of output stocks have been declining rapidly, and under normal financial conditions the outlook would be an encouraging one. Unfortunately, however, the industry cannot revive while there exists so much uncertainty as to the course of copper prices. It is true that there have been steady purchases of copper in France and elsewhere, but it is thought that this has been done under the belief that values cannot descend much lower, and in anticipation of a rising market when the metal would again be offered for sale in enormous quantities. This hypothesis would seem to have only a restricted application, as the sources of consumption have certainly, within the past few years, been very largely increased, and it is probable that speculators would not think it worth their while to lay in secret stocks, when it is possible for the American copper companies to avail themselves of any advance to send over considerable supplies. Not only copper, but tin and lead depend to a greater or less degree upon the tendency of silver, and neither of these metals can be expected to show any vitality until the position of silver becomes clearly defined. Whether this will take place yet awhile may be very much doubted, as the silver companies have it in their power to glut the market whenever they can dispose of the metal at a profit, and the interests involved are too much at variance to enable them to carry out any effective policy of restriction, even if it were possible to correct the present economic evil by artificial means. Under these circumstances any activity in mining must necessarily be in the direction of gold production. This branch of enterprise offers a better guarantee for profitable returns than is possible in the case of a great many investments which have been considered as perfectly safe, though this does not do away with the necessity for the investing public to exercise a great deal of discrimination in the selection of the scrip which they wish to purchase. In this respect, perhaps, the French investor is somewhat in advance of the English, as his experience of Portuguese and other securities, which have proved to be peculiarly insecure, has induced him to pay more attention to South African gold mining shares, and as a great deal of money is likely soon to be available for these two enterprises, one or two new gold mining companies are already being floated in Paris. At the same time, investors are very circumspect in the purchase of South African scrip, and if, as is likely, a revival of buying takes place in Paris, it will certainly reflect itself upon the London market as a perfectly legitimate outcome of activity in gold mining.

THE WEST AUSTRALIAN GOLD FIELDS.

MUCH interest was attached to the statutory meeting of this company, which was launched only a week or two ago under such favourable auspices. One gratifying circumstance in connection with its flotation is the fact that it is the only new company which has been launched by public subscription for 18 months. That is to say, the capital was not underwritten. The majority of the others have been. This is evidence of the feelings and desires at the present moment occupying the minds of British investors. It furnishes, as it were, the key to the hidden recesses. The English shareholder is quite ready to invest in any undertaking which he feels certain is no "bogey" affair, but which, on the contrary, promises to be sound and profitable. We do not say that the West Australian Gold Fields Company will prove such an undertaking. The British investor thinks it will, and he has backed up his opinion by his subscription. The name, "Coolgardie," rings in his ears as a magic sound, and is sufficient to conjure up scenes in his mind's eye of unlimited wealth. So easily is the imagination nourished. He has—through treacherous channels too frequently—remitted his hard-earned capital to many quarters of the globe, and has paid the penalty of his rashness. He has had only a vague idea of the uses for which it has been employed, but a certain one that to him it has been unprofitable. He now looks to Western Australia as the land of promise; as the place which is the most likely to recoup him for his losses; and as the land which will revive the hope continual disappointment has hitherto crushed. He has been furnished the first opportunity of expressing his conviction, and it is to be hoped nothing will take place to shake his newly-born faith. Thus a great responsibility lies upon the West Australian Gold Fields; a responsibility we hope it will fully recognise, and fully carry out. At the present moment it were idle to prophecy that it will fulful so great an obligation. One thing is certain. It has everything on its side. It will, comparatively speaking, have but few obstacles to overcome. If, under these circumstances, it makes a failure of its mission, it will merit the hardest speaking, and the severest denunciation. Coming to the statutory meeting, which was held on Monday, it passed off, as was naturally anticipated, with success. The meeting was not a large one, but it was critical and intelligent, and not a few pertinent questions were put to the Chairman, and answered satisfactorily. The total number of shareholders is 450, whose subscriptions amount to £42,788. The directors, not desiring any more capital, have refused applications for shares made since the public issue, for they feel certain—such is their confidence in the future of the company—that if at any time they should require further funds, they will be able to issue the remainder of the share capital "at a very substantial premium." That those present quite concurred in this was evident from the applause which greeted the statement. It is more than likely the directors will be able to do so, and is proof that they, at the first setting out, are fully alive to the interests of the company. A further proof of their intention—we hope such initial energy will not produce subsequent languor—not to let the grass grow under their feet is the dispatching at the earliest possible moment of two prospecting parties to select the company's claims. The contract which has been made with the Hampton Land's Company is a valuable and advantageous one, and reflects considerable credit on Mr. SAUNDERS, who, we believe, is responsible for it. The West Australian Gold Fields is to select claims on the former's property, on which payable gold undoubtedly exists, but should any of the claims selected turn out disappointing, the company has the right to throw them up and take others. The contract gives the right to select 20 claims of 25 acres each, and 100 acres of alluvial. The company has been fortunate, too, in the selection of its consulting engineers. Messrs. BEWICK and MOREING are a firm of high standing and integrity, and the directors will be wisely guided by them. Mr. MERCER has been dispatched to Western Australia as a representative of the firm, and he it is who will have the conduct of the prospecting parties, and the final selection of the claims. "With all these safeguards," said the Chairman, "we ought certainly to get some good claims." We think, and hope so; if not, it will be an astounding and unaccountable thing. The Chairman laid great stress in his speech on the fact that there is payable gold on the property of the Hampton Lands Company, "so that it will be a very extraordinary thing if this company cannot select some good claims for itself."

Lord CASTLETOWN specially directed himself to answer the question of a contemporary as to why, if the company was such a good thing, it was ever brought to London, for, as a rule, all good things are kept by the colonials themselves. The Chairman's reply was ingenious, but it was scarcely so conclusive as we should have expected. We should have liked a more unanswerable explanation, and one less open to criticism. Not that it is our intention to pick it to pieces. We prefer to wait for future events. We are content that it makes the responsibility which the directors have thrust upon themselves all the more onerous and delicate. The first reason assigned by Lord CASTLETOWN was that the Hampton Lands property was owned in London, and the contract could not have been obtained by Mr. SAUNDERS unless he had come to England for it; the second was because the Hampton Lands Company stipulated that Mr. SAUNDERS should form a company in London to take over the contract before he returned to the colony. Then the reply to the question, how it was that if the land is so valuable portions of it have not been sold in the colony, was that offers of very large sums of money have been made for the property of the Hampton Lands shareholders; but the latter, believing that they have a very good thing, intend to retain a substantial interest in the company it is now proposed to form. "As a result, a syndicate has been formed," remarked Lord CASTLETOWN, "to acquire the option to purchase the Hampton Lands Company's property. All the capital of the syndicate has been more than subscribed privately, and the West Australian Gold Fields (Limited) will, in due course, promote the New Hampton Lands Company on behalf of this syndicate, in which the Gold Fields Company itself has a substantial interest." One achievement upon which the directors can congratulate themselves—the announcement of which was received with expressed favour by the shareholders on Monday—is the disposal already of two claims "on most advantageous terms to a gentleman who is now believed to be on the fields with ample private means at his disposal." This gentleman selects his own claims, finds all working capital and machinery, and gives the company one-half of his net profits, after settling with the Hampton Lands Company. This contract was made by Mr. SAUNDERS before the public issue, and another point in its favour is that whilst this gentleman is selecting his own claims, he is also bound to mark out any likely claims for the Gold Fields Company at the same time, so that, in effect, his private prospecting company is also working on behalf of the company. This is all evidence that the company has been exceptionally fortunate in the facilities afforded it in more than one direction at the commencement of its career. The Government of the colony is itself indirectly working in the company's interests. It has awakened itself to the importance of the colony; to its proved wealth and now world-wide reputation; and it has already taken energetic steps to open up the country and to equip it with all the advantages of science and civilisation. Railways are being rapidly constructed; telegraph wires are being laid down—or, rather, up—and efforts are being made to cope with the water difficulty. Thus the company commences its journey with a flourish of trumpets; with every sign of rejoicing and well-wishing; indeed, with every prospect of welfare and success. How it will speed as time rolls on will afford interest to a large body of the investing community.

INDIAN GOLD MINES.

PUBLIC, or, rather, speculative, attention has not been directed towards Indian Gold Mines of late to the extent that they really deserve. Doubt and uncertainty have been the emotions that have agitated investors, and have driven them with fluctuating suddenness from one extreme almost to the other. We can scarcely prophesy from one day to the next how they will regard the mines. Still, there is a cause for this vacillating tendency. The news received from the properties situate in this quarter of the globe has been so changeable that conclusiveness could not be imparted to the would-be investor. One week we hear of something that fills us with hope, and the next information is received of a depressing character. The investor seems unable to lay hold of anything tangible. He is like one walking in the dark, ignorant of whither he goeth. He shuffles along feeling his way, as it were, but is, nevertheless, swayed to and fro, not without painful bumps and bruises, owing to the uncertain nature of the ground o'er which he travels. Respecting the Mysore Gold Mining Company, which not long ago occupied so conspicuous and enviable a position, he was coming to the conclusion that the mine was being worked out; that its days, in fact, were numbered. He does not think so now. The annual report of the directors, a copy of which we have been favoured with this week, has quite dissipated that gloomy conviction of his. In its place confidence has been restored—whether temporarily, we know not. The income on revenue account for the 12 months amounted to £254,549 0s. 11d., the sum of £254,311 9s. 8d. being realised for the gold produced, and the balance of £237 11s. 3d. received from other sources. The expenditure on revenue account for the year was £117,531 9s. 8d., and the royalty on gold amounted to £12,580 8s. 9d., together £130,111 18s. 5d., which sum has been charged against income, leaving a profit on the 12 months' working of £124,437 2s. 6d. To this latter amount the balance of £474 16s. 5d. brought forward from 1882, and the profit of £7642 7s. 1d. on the sale of 10,000 shares of the Champion Reef Company, have been added, making a total disposable sum of £132,554 6s. Out of this two interim dividends were paid at the rate of 3s. 6d. per share, on July and November 11 last respectively, absorbing £80,115 4s. 8d. Other sums have been expended in other directions, so that a balance has been carried forward of £38,283 2s. 5d. Out of this a further dividend of 3s. per share has been declared, payable on the 14th inst., which will absorb £37,341, leaving in hand £942 2s. 5d. Altogether, as the directors likewise point out, the amount divided amongst the shareholders out of the profits for 1893 was at the rate of 10s. per share, or a total of £117,456 4s. 8d. No wonder, when this information is circulated amongst them, investors now regard with a favouring eye upon the mine. Looking at these facts calmly, we cannot but wonder that there should, a little time ago, have been this neglect and absence of confidence and satisfaction manifested. Another circumstance which has tended to restore confidence is the fact that the revenue expenditure for the year was £13,441 3s. 11d. in excess of that of 1892. The directors certainly would not have gone to this extra outlay had they not foreseen profitable results from it in the future. This additional expenditure has been brought about, they say, partly by the additional quantity of quartz raised and milled, and tailings treated (being 5274 tons and 11,522 tons respectively), and partly by all the costs in connection with Schaw's section, previously counted as capital expenditure, having been charged against revenue for 1893. It is true that the profit on the year's working shows a decrease on that for 1892, the figures being, for 1893, £124,437 2s. 6d.; for 1892, £133,167 6s. 7d. Were this not the fact the restoration to confidence would have been more complete and lasting. We regret it is not so; but we, nevertheless, accept uncritically what we consider the satisfactory explanation of the directors—viz., that this decrease of profit is accounted for by a falling off in the grade of the ore milled, additional quantities of quartz and tailings treated, and by charging against revenue the expenditure at Schaw's section. The report likewise points out that the costs in connection with sinking Rowse's, Tennant's, Gilbert's and McTaggart's shafts, and extending the levels and cross cuts from the same, whether on the lode or in barren ground, have also been charged to mine costs. Taking the directors' report as a whole—the information contained therein is always full and complete—together with the report of Mr. HANCOCK, which accompanies it, we have every reason to be satisfied with them, and feel no hesitation in believing the concluding statement that "the directors beg to say, in conclusion, the position and prospects of the company are such as to lead them to anticipate that the results of the current year's operations will be in every way satisfactory to the shareholders."

The directors of the Nundydroog Company have likewise issued their annual report this week. Although, from many points of view, not so reassuring as the report of the Mysore board, nevertheless the impression abroad is that it is better than was expected. It has evidently reassured shareholders, for, far from being anxious to dispose of their holdings, they are retaining them for the better times they anticipate will come. The directors, themselves, deplore the fact that the financial result of the year's operations has been most disappointing to them. This has been brought about, they say, entirely by a considerable decrease in the yield of the ore, a circumstance, they rightly add, that could not be foreseen, and over which they had, of course, no control. The gold sales for the year realised the sum of £103,107 13s. 2d., and the receipts from other sources amounted to £549 18s. 6d., together representing a total of £103,657 11s. 8d. The revenue expenditure in India and England was £60,604 15s. 8d., and the royalty on gold £5123 4s. 3d. The profit on the 12 months' working amounted, therefore, to £37,929 11s. 9d. In August last an interim dividend of 1s. 6d. per share was paid, absorbing £14,998 7s., and after the disposal of other sums there remains a balance to carry forward of £12,225 11s. 11d., out of which a further dividend of 1s. per share on the fully-paid shares, and 5d. on the partly-paid shares, has been declared, payable on the 20th inst. For the whole of the year the dividends amounted to 2s. 6d. per share on the fully-paid shares, and 5d. per share on the partly-paid shares, representing a total distribution of £25,840 5s. Considerably larger quantities of quartz and tailings were treated than in the previous year, but the amount of gold obtained was 3489 ounces less, in consequence of the falling off in quality in both cases. As in the case of the Mysore Company, the revenue expenditure has greatly increased during the past year. The amount was £60,604 15s. 8d., as against £44,631 7s. 8d. in 1892, brought about, the directors say, by the larger quantity of quartz raised and milled and tailings treated, being 7584 tons and 1039 tons respectively. Unfortunately, it cannot be said that all this money has been spent to good purpose, seeing that the quality of the quartz and tailings has fallen off, but this is a circumstance for which the directors cannot be blamed. Luckily, they are of opinion this is only temporary, and in view of the valuable discoveries at Kennedy's and the promising appearance of the lode at the 1000 feet level at Taylor's, they think an improvement in quality may soon take place. The meetings of both companies will be held next week. We shall await with interest what the directors and Mr. TAYLOR will have to say. We have no doubt the meetings will pass off harmoniously and successfully, for what has happened has been in no way avoidable by those who are entrusted with the respective managements.

NOTES AND COMMENTS.

TAKING the Mining Market as the barometer, we may look back upon the past week with satisfaction. Activity has been the feature. In the South African department, especially, good business has been transacted, whilst the Indian and miscellaneous shares have, in sympathy, displayed more buoyancy. We have received this week news from the Rand of another "record" output, the total yield amounting to nearly 152,000 ounces. This continued evidence of the wonderful wealth of this part of the world should be sufficient to place mining once more upon a firm and stable basis. We will not go so far as to say on a permanent foundation, for there are possibilities in nature, and in human life, as Hamlet observed in his mood of depression, of which we cannot form a conjecture. If we calmly try to gaze into the long and almost unimaginable vistas of future time we can conceive of the possible exhaustion of the gold wealth of the Rand, but measured by our own span of life, and the time which alone vitally interests us, we may correspondingly apply a limit to the word "permanence," and rest assured that the Rand will last long enough for our needs and desires. Along with this encouraging progress from South Africa, we see a little gleam of light attempting to dissipate the darkness of trade depression. It is but a fitful gleam, but, nevertheless, it is light, and already it has filled with hope and encouragement the hearts of many. At the commencement of the year it was prophecied, by those who think themselves capable of foreseeing future events, that we could not expect to see signs of improvement until the month of March. That time has arrived. May we say that we see them? We think no hesitation is necessary before answering in the affirmative.

AT the meeting of the Associated Chamber of Commerce this week, Sir Albert Rollit, whose authority we all acknowledge and whose opinion we all respect, expressed his conviction that both the present and prospective state of trade seemed once more hopeful and even promising. As he has remarked on many occasions, and as we are all too painfully aware, the year 1893

was disappointing as a business year, and in many ways was disastrous to capitalists. Since December, however, that is, with the commencement of the new year, the Board of Trade returns have been more satisfactory, since, in most parts of the world, except America, there has been a tendency towards improvement. For January and February the returns showed a comparatively marked increase in the value of the volume of our trade, and, having regard to prices, the increase in quantity was even greater than the values indicated. Sir Albert paid a tribute to the importance of Africa. This continent, he observed, offered almost boundless prospects; in most of it, too, trade was free. In the construction of roads and railways, India and Burma would be to us what Siam, and, through it, Southern China, might have been. He then visited in imagination that coming productive centre, Western Australia, which is being so rapidly opened out. Yes; we may certainly turn our attention to that part of the Australian continent with hope, and almost enthusiasm. To the miner and investor it is, indeed, the land of promise, and, of course, as it opens out and becomes populated, it will offer a splendid field for the extension of our commerce.

We have received this week a copy of the circular issued to the shareholders of the Bonnie Dundee Company, under date March 1st, intimating notice of the second call of 6d. per share, payable on the 20th inst. It has been an unconscionably long time in reaching us from No. 3, Gracechurch-street, nor can we imagine any reason for its delay. The previous call was made on the 26th of September last, and the directors take the opportunity of communicating the extent of the work done since that time up to the present. We have no reason to find fault with the rate of progress made. On the contrary, we are disposed to think it is excellent. The new vertical shaft, we are told, has been enlarged from the surface to a depth of 220 feet, and sunk 227 feet further, thus making the present depth 447 feet. At 286 feet a large ormation, with a reef 9 inches thick, was met with, but it was not considered advisable to open out on the reef, as it would have delayed the sinking of the shaft. The precaution, however, has been taken to put in opening-out setts of timber, so as to admit of the reef being developed later on. It is presumed that the "Queen Cross" reef will be met at 570 feet, which longedor event at the present rate of sinking should take place in about two months. The development of the reef met with at the close of 1892 has been continued, and the latest appearances point to a large quantity of payable stone as the result.

The Libiola Copper Mining Company is, and has been for years, a remarkably successful one. Though all things—and things mineralogical especially—are uncertain, the shareholders of the Libiola, at all events, have an approximate certainty of receiving each year a dividend which, in comparison with those paid by other companies may, without any stretching of the phrase, be called handsome. It is of the first importance, too, to remember that the dividend paid for the year 1893 has been accumulated in the face of depressingly low copper quotations, when the market was swamped by American importation. This fact alone seems to argue a highly satisfactory future for the company when the baser coinage-metal shall rise in price. The enterprise and vigour with which the management of the company is carried on is conclusively shown by the alacrity with which a local demand for the lower grade ores was turned to account; their caution was evidenced by a refusal to entertain a project, as hazardous as it was stupendous, for the expansion of the subsidiary branch of the working into a vast operation. The telling comparison instituted by the Chairman between the position of the company and that of many other similar concerns, is one calculated to spread a spirit of complacency among the shareholders, and to make the board of directors pardonably self-satisfied. Among a host of doubtful undertakings, it is, indeed, refreshing to come across a notable and appetising exception. It engenders renewed hopefulness.

The extraordinary success which has attended the institution of a small cyanide plant by the directors of the Glenrock Company ought to arouse a certain hopefulness among the shareholders in the concern. Last week the result of the policy was unknown, and the directors were having rather an anxious time of it, in the fear that something might have turned out unfortunately in the working, or that the results might be less satisfactory. Just before the meeting came a cablegram setting the matter at rest. A production of 148 ounces of gold out of 62 tons gives a splendid average, the more welcome as it is based upon a large operation. This one communication from the mine will no doubt convince the shareholders that they were right in going to reconstruction. Had it not been for the accession of funds which accrued from the process the operations would have proceeded so slowly that years might have elapsed before the attainment of any satisfactory return for the shareholders. With the additional impetus in a forward direction, which can hardly fail to be communicated by heavier coffers, the shareholders should not have to wait so long for some direct advantage from their property. Probably, their patience will soon be rewarded.

The discovery of petroleum in Somerset will turn the too wandering mind of the investor upon his own country, which from a mineralogical point of view has suffered a good deal of neglect. At first it might have been thought that the discovery was heralded too loudly, and that much more importance was attached to the fact than by itself, without the aid of the imagination, it would warrant. There is a striking illustration of a rule proved by its exception, for now that the clamour of the novelty has begun to wear away from the sudden striking of the well, it really seems as if a new industry were to be added to the county o Somersetshire, and that early anticipations were likely to be m than realised. Experts of a practical turn of mind, not wont to allow their patriotic emotions to give them coloured views, have delivered themselves on the subject with a conclusiveness and optimism which together can hardly fail to carry conviction. Unsubstantiated by the results of experiments, their utterances would go a long way to form the minds of the uninitiated, but, supported by Saturday's experiments, they have gathered additional weight. It yet remains to place the conjectural dimensions of the oil deposit on a more certain basis, and that will shortly be done by the boring process. Already the scientist has stepped in and begun to form theories connecting the deposits with the geology of the district. Together, the practical men and the theorists ought to arrive at truth on the point.

The proceedings at the recent meeting of the directors of the Bank of England have merely tended to resolve into something more solid the rumours which have been disturbing the serene and smoky atmosphere of the City. Little transpired that was not known—at least in the rough—before; and the Governor's speech could only amplify and limit and define what has now for some time been public property. There was, however, an abundance of fresh evidence afforded in condemnation of the old-fashioned and impracticable style of management adopted by the rulers of the Old Lady of Threadneedle-street, as our National Banking Establishment is humorously termed. Obviously, there will have to be some conforming to modern ideas and methods here, else the public confidence in the operations carried on within the vast and gloomy walls of the bank will receive a severe shaking. Even the slowest and most heavy-moving of our public organs admits that some important changes are needed, and an admission of this sort, and from that quarter, should generally be preceded by the reformation which it concerns.

America's enormous progress in coal mining is shown in a very impressive manner in the report which has been drawn up for the British Foreign Office by Mr. Arthur Peel, of the British Embassy at Washington, and which has just been issued as a Parliamentary paper. It appears that in 1892, mining was carried on in 29 States of the Union. The total output was no less than 179,329,071 tons, valued at $207,566,381; and the industry afforded occupation to 341,943 persons. An idea of the great speed at which America's mineral resources are being developed will be gathered from the state of affairs which prevails in the State of West Virginia. In 1873 this State produced only 670,000 tons. Ten years later the total had become 2,335,833; and in 1892 it was 9,738,755 tons. The fuel was of all kinds, including splint, gas, steam, cannel, and coking, and it is stated to be of excellent quality. Indeed, Mr. John Pattinson, of Newcastle, to whom a sample was submitted, pronounced it to be "of high calorific power, being in this respect equal to the best Welsh steam coal." It has the further advantage of being readily secured, and so far hardly any deep boring has been necessary, there being ample supplies obtainable from the mountain sides by comparatively superficial work.

Mr. Peel gives a faithful and useful warning. He declares that it would be idle to ignore the almost unlimited resources of the United States, the excellence of the quality of the coal, and the possibility of greater economy in the system of mining, and the cost of freight. He looks forward to a great development of the export trade of the United States in coal, and he appears to think the bringing of American coals to England by no means improbable, though he does not say so in as many words.

The threat of an inundation of American coal in the United Kingdom is no new one. Often has it been made, but never yet been realised. The time may come when it will be; but not, we expect, for a considerable number of years; and by that time, somehow or other, producers at home will have adapted themselves to the altered industrial and commercial conditions. That America will in the future become a competitor for the foreign custom which England now enjoys there can, however, be little doubt. It is well, therefore, for labour and capital to join hands in preserving and extending our trade, so that this danger may be as far as possible minimised. The miners, in particular, require just now to learn this lesson. American coal is sold at remarkably low prices. The average value of the West Virginian coal in 1892 did not exceed 80 cents per ton, whilst in some States it realised as little as 61 cents. And yet the English collier insists upon demands which make our home mining industry an increasingly difficult undertaking to embark in.

CARDIFF AND SOUTH WALES COAL AND IRON TRADE REPORT.

CARDIFF, Friday Evening.

The trade of the port continues active, but the unfavourable weather which has recently prevailed has delayed tonnage, and shipments, as a consequence, have fallen off slightly. The coming week will, however, be a busy one, as regular buyers are anxious to secure supplies before the holiday commences, and the arrival of tonnage since Wednesday has been heavy. There is a fair demand for patent fuel, but coke prices are easier, albeit the demand is fairly good. Closing prices were as follows:—Best steam coal, 12s. 6d. to 13s. 3d.; seconds, 12s. to 12s. 6d.; best Monmouthshire, 11s. 9d.; and small, 6s. 6d. to 7s. per ton; best household, 13s. to 13s. 6d.; No. 3 Rhondda, large, 12s. to 12s. 3d.; small, 8s. per ton. Coke, special foundry, 20s.; foundry, 17s. 6d.; and furnace, 15s. 6d. per ton. The finished iron and steel trade is showing more activity, but prices are unchanged. Tin plate orders, however, are very scarce, and a further curtailment of the output is probable.

The Champ d'Or Company, at the dispatch of the last mail, was expected to give a profit of £2400 for February. The mine looks well, and it is probable that the Teutonia Company's property will be amalgamated with it. At the west end of the Teutonia property there is good payable ore; but at the east end the reefs are much broken, poor, and unpayable.

OUR CITY ARTICLE.

Friday Evening.

THE MINING MARKET.

An active week for South African Gold Shares.—Another Record Randt output.—Diamond Shares to the front.—Indian and Miscellaneous Securities fluctuate.—A better tone for Home Shares.

The Mining Market this week has been exceedingly strong; in fact, more business has been transacted, and more advances have taken place than has been the case for a considerable time past. As usual, the South African market has been the chief feature of interest, most of the favourite securities recording conspicuous rises. Probably this is mainly due to the fact that we have received this week record Randt output. By this time we are getting quite accustomed to this, and every month we shall expect to see advances upon the preceding one, until we shall progress to an enormous yield. For February last the crushings on the Witwatersrandt Fields realised 151,870 ounces, against 149,814 for January. Of this the African Gold Recovery Company announce that 44,500 ounces of gold were recovered at the Randt, and 7000 in other districts, by means of their MacArthur-Forrest cyanide process, which is over 29 per cent. of the Randt output for February. This, of course, is further evidence of the great value of this process, and of the enormous progress it is making, and of the sway which, we can imagine, it will hold in the very near future. To individualise any of the gold shares that have received the most favour from the public would be invidious. One day one class of shares, would be conspicuous, the next another class would come to the front. Suffice it to say that all have shared in the general activity, and have marked improvements. On Thursday, however, a pause in the buying took place, and careful people debated then as to the expediency of taking profits, which caused a set-back. However, if one is to believe the accounts of the enormous sales that are said to take place outside the Stock Exchange, there seems to be little doubt that the prices of many favourites will further considerably advance. Tuesday, of course, was occupied by the carry-over arrangements. In many cases the making-up prices showed substantial improvement, the sharpest recovery, amounting to 1¼, having been in Jagersfontein, which carried over at 15¼, as against 14 last time. De Beers were $\frac{7}{16}$ higher, while amongst gold and land shares City and Suburban headed the list with a gain of 1$\frac{1}{16}$. African Exploration went up 1, and Simmer and Jack and New Primrose 1/2 each. Langlaagte, Meyer and Charlton, and Robinson added $\frac{7}{16}$ to their quotations. On the other hand, losses were shown in the case of Ferreira, which were 3-38 lower, and of New Rietfontein, which were $\frac{3}{8}$ to the bad. Jubilee and Pioneer also showed lower making-up prices. Much satisfaction has been derived this week from the announcement that the Jumpers Company made a profit of £7500 for February, which sum exceeds all previous estimates by £1500. Primroses have also been in demand this week on account of the increased profits. In January the return was 8001 ounces, and in February, which had three days less, 7947 ounces were obtained. The increased profit is recorded as evidence of economy having been effected. Diamond shares have also been considerably better this week, and both De Beers and Jagersfontein record advances. Rumours are afloat that there will probably be an amalgamation of these two companies, but this is regarded by many as a *canard* of the "bull" division. Land shares, on the contrary, have not been prominent. Chartered have, on the whole, been rather flat, whilst the less said about other descriptions the better. At the commencement of the week, and up to Wednesday, the Miscellaneous market exhibited few features of interest. On Thursday, however, a revival took place, which promises to continue. The reports which have been issued this week by the directors of the Mysore Gold Mining Company and the Nundydroog Company have given satisfaction, and have restored confidence in the holders and would-be purchasers. In consequence of this the shares of both companies have been in demand at higher prices. Broken Hill Props. have been rather prominent this week, but on Thursday a decline took place on the relapse in silver, and the expectation that the next dividend will be a reduction on the lately usual one of a shilling.

British Mines.

The Cornish market has been very much better this week, and although tin has receded a little from the highest, transactions have been more numerous than for a long time past. Dolcoaths have varied considerably from 67 to 72½, but do not close at their best. The shares, however, are not plentiful, and with the least reaction in tin, it looks as if there would be a further rise in them. Carn Brea are steady at 12½. Killifreths have changed hands freely between 68s. and 70s. South Frances have been enquired for at 5s. Tincrofts are firm at 10¼. West Frances advanced to 20s. "buyers" in consequence of the improved prospects at the mine. West Kitty are very scarce at 6¾. Wheal Basset have been enquired for at 67s. 6d., but holders are shy. Wheal Grenville's are steady at 14 "buyers." Risen: Cook's Kitchen, 5s.; Dolcoath, 30s.; East Pool, 10s.; South Crofty, 5s.; Tincroft, 10s.; West Frances, 5s.; West Kitty, 10s.; and Wheal Basset, 5s.—Fallen: Wheal Agar, 10s.

South African Shares.

The commencement of the week witnessed continued buoyancy in this market, Kaffir shares being extremely active. Langlaagte were especially conspicuous, the shares rising to 4$\frac{7}{16}$ buyers. Meyer and Charlton were bid up to 5¾ buyers. United Roodepoort continued their upward tendency. Jubilees recovered to 5$\frac{1}{16}$, and it was stated that those who were talking down the property last week were buyers at reduced prices. A strong demand again set in for Jumpers, the profit for February being £7500, or an increase of £1500. Geldenhuis Deep, Village Main Reef, and Ferreiras all improved. Chartered were rather dull, but Oceanas recover $\frac{1}{16}$, whilst Consolidated Gold Fields and Bechuanaland Trading were both somewhat higher. In view of the approachin arryover, Jagers and De Beers were flat, the former being $\frac{1}{16}$ worse and the latter $\frac{1}{16}$. The early part of Tuesday morning was mainly occupied by the carry-over arrangements, which were very quickly effected, the making-up prices in many cases showing substantial improvements. The sharpest recovery, amounting to 1¼, took place in Jagersfontein. De Beers were $\frac{1}{16}$ higher. On Chartered and Gold Fields the rates were rather stiffer than usual, a contango of 1¼d. ruling on the former, and one of 2d. on the latter. On gold shares the rates were comparatively easy. This business over, there was renewed bidding for gold shares, though the volume o busine acted was not great. City and Suburban were conspicuous by a rise of ¾. Geldenhuis Estate were bid up to 4¾. Durban and Heriots were also in demand at advances. Jubilees were still enquired for, the shares finishing at 5$\frac{1}{16}$. Henry Nourse

and Gt Fingalls likewise improved. Primrose were enquired for on the satisfactory position of affairs shown by increased profit. Advances of ⅛ took place in Wolhuter and Worcester, whilst a harder tone characterised Langlaagte, Village Main Reefs, and Geldenhuis Deep. On the other hand, a relapse took place in Ferriera and Rietfontein, and Meyer and Charlton were rather easier on realisation of profits. Diamond shares were again strong. Jagers were taken up by Hatton Garden speculators, the advance in the price being no less than £1. De Beers improved ⅛. Wednesday witnessed a continued advance throughout this section of the market, which presented the firmest possible appearance. Amongst gold shares, Village Main Reef were the chief feature, the shares improving ¼. Cities were again in demand, and further advanced. New Reitfonteins were taken in hand, and received vigorous support, whilst improvements took place in Worcester, Heriot, Ferreira, Wemmer, Geldenhuis Deep, Robinson, New Chimes, and Wolhuter. A slightly harder tone likewise characterised Consolidated Deep, Jubilee, Paarl Central, and Simmer and Jack. Amongst land shares Chartered were rather dull, but Consolidated Gold Fields exhibited a harder tone. Diamond shares were again strong, both De Beers and Jagers improving. Unfortunately there has been a slight reaction in this market at the close of the week. This, however, cannot by any means be taken seriously, as there was a disposition to snatch profits on shares which had recently made substantial advances. The result was that in the majority of the cases prices closed below the best, and in a few instances slight declines were registered on balance. A sharp reaction has taken place in diamond shares, both De Beers and Jagers showing a deline. Chartered have likewise been neglected. The following are the week's changes:—Aurora, 1s.; Bantjes, 1s.; Bechuanaland, 2s.; Buffelsdoorn, 3s.; Bultfontein Consolidated, 1s. 6d.; City and Suburban, 17s. 6d.; Zoutpansburg, 6d.; Consolidated Deep Level, 5s.; ditto Gold Fields of Africa, 1s. 3d.; Crown Reef, 10s.; De Beers, 2s. 6d.; Durban Roodepoort, 8s. (allowing for dividend); Geldenhuis Deep, 2s. 6d.; ditto Estate, 2s. 6d.; Glencairn, 1s.; Griqualand West, 2s. 6d.; Heriot, 5s.; Johannesburg Estate, 1s.; ditto Trams, 6d.; Jubilee, 12s. 6d.; Jumpers, 2s. 6d.; Langlaagte, 2s. 6d.; Meyer and Charlton, 5s.; New Chimes, 1s. 3d.; New Crœsus, 1s. 3d.; New Jagersfontein, 12s. 6d.; New Primrose, 3s. 9d.; Nigel, 2s. 6d.; Pioneer, 7s. 6d.; Princess Estate, 1s.; Reitfontein, 2s. 6d.; Salisbury, 2s. 6d.; South African Gold Trust, 6d.; Stanhope, 2s. 6d.; Southern Land (fully paid), 4s. 6d.; Transvaal Coal, 6d.; ditto Land (fully paid), 6d.; United Roodepoort, 2s. 9d.; Village Main Reef, 5s.; Wemmer, 5s.; Witwatersrand (Knight's), 1s.; Wolhuter, 2s. 6d.; Worcester, 2s. 6d.—Fallen: East Rand, 6d.; Exploring, 2s. 6d.; Moodies, 6d.; Mozambique, 1s. 3d.; Nyassa, 2s. 6d.; Orange, 5s.; Paarl Central, 1s.; Randfontein, 6d. South African Trust and Finance, 6d.; Spes Bona, 1s. 3d.; Transvaal Estates, 6d.; United Langlaagte, 1s. 3d.; Zambesia, 2s. 6d.—Dividends declared: Johannesburg Trams, 4 per cent.; South African Gold Trust, 10 per cent.

Indian and Miscellaneous Shares.

This market did not display very lively activity at the commencement of the week, although there was a steady demand for a few of the descriptions. Amongst Indian shares Mysores were fairly strong on the receipt of the annual report, which imparted more confidence. Nundydroog, on the other hand, as well as Ooregum, declined ⅛. Mysore Reefs were steady. Broken Hills Props. improved ⅛. Don Pedro fell 6d. Amongst copper shares, Rio Tinto gained ½. The rates for the carry-over ruled very light in most of the shares in this section of the market. Attention was chiefly devoted to the Indian department, where Mysores showed a further revival. Nundydroog, Ooregum, and Champions shared to a small extent in the better condition of the market. Rio Tinto improved ½. On Wednesday the tone of this market was quieter, and although the reports from the Indian companies were considered satisfactory, it had no corresponding improvement on the shares. Broken Hill Props. were unchanged, but an improvement took place in El Callao of 1¼. In contradistinction to the South African market this department has, towards the close of the week, displayed more activity. Broken Hill Props. have been the turn easier, owing to the relapse in silver and the expectation that the next dividend will not be so much as the previous one. Indian shares have been, on the whole, unchanged, with the exception of Nundydroogs, which have been enquired for. The following are the week's changes: — Risen: Achilles, 2s. 6d.; Bonnie Dundee, 6d.; Burma Ruby, 3s.; Cape Copper, 1s. 3d.; Champion Reef, 1s. 3d.; Coromandel, 6d.; El Callao, 6s. 3d.; Jay Hawk, 6d.; Mill's Day Dawn, 1s. 3d.; Montana, 1s.; Mysore Gold, 5s.; Mysore Reefs, 6d.; New Queen, 6d.; Nundydroog, 5s.; Pahang Corporation, 2s. 6d.; Palmarejo, 6d.; Rio Tinto, 5s.; and Sierra Buttes (Plumas), 2s. 6d.—Fallen: Aladdin's Lamp, 1s. 3d.; British Broken Hill, 6d.; Colombian Hydraulic, 6d.; De Lamar, 6d.; Don Pedro, 1s.; Elkhorn, 6d.; Harquahala, 1s.; Mason and Barry, 2s. 6d.; Mount Morgan (allowing for dividend), 6d.; South East Mayse, 6d.; and Wentworth Ordinary, 6d. Dividends declared: Baker's Creek, 1s.; Springdale, 2d.

THE BRITISH GUIANA GOLD INDUSTRY.—At the present time, says the *Demerara Chronicle* of February 7, the gold industry in the colony is to a very considerable extent in a state of "suspended animation," everyone being anxiously waiting for the result of the first crushings. The half-yearly meetings of the various gold companies are anticipated with not a little impatience by many of the shareholders who desire to be in "the know" as to how matters are progressing. Those who should be able to speak with authority on these matters assert that as soon as work is commenced in good earnest at the claims of the various companies the market will at once awake; and the prospects of a rich return to the shareholders are held to be just as bright as ever they were. Meanwhile, the delay is causing a great deal of uneasiness that, we are assured, is altogether needless. The published experiences of the gentleman interested in the Kanimapoo, who recently visited the property of the company, have created not a little interest and satisfaction, bearing evidence, as they have done, to the fact that the affairs of one at any rate of the new companies are being efficiently managed. The statement which it is expected will be shortly placed before the shareholders of the Barima Company, from Captain Harris, is bound to be of considerable interest. Whilst the affairs of the "big" companies appear to be at a standstill, we hear rumours to the effect that several small syndicates and individual owners of claims are in treaty for the purchase of quartz-crushing machinery, and one or two American firms are offering peculiar inducements and facilities to encourage the introduction of their patents into the colony. Although it is not by any means to be supposed placer mining is being neglected—on the contrary, it appears to be engaging as much attention as ever it did—there are many indications of the fact that, in the near future, quartz-mining will supersede in importance the more primitive forms of procedure. We understand that the Commissioner of Mines—who, by the way, during his recent visit to the Barima, despite the difficulties he had to encounter in consequence of the floods, inspected many important claims in the locality—intends departing for Barbados, where he will stay for a few weeks, by the R.M.S. *Dee*, having been detained in the colony in consequence of the delay that occurred in the departure of the *Duart Castle*

THE MINERAL WEALTH OF HUELVA.

Being an Illustrated Article on the History of this District from the earliest times.

[Specially written for *The Mining Journal.*]

VI.

(Continued from page 255).

Coincidence of Names.

RATHER more than half way between the port of Huelva and the Rio Tinto Mines, following the river from which the mines take their name, there stands out a conspicuous hill on the right bank of the river. One of its spurs is tunnelled through by the Rio Tinto Railway; its only inhabitants are the wolf and the wild boar, and it bears the name of Cabezo Salomon (High Hill of Solomon). Why this name was thus applied in a country which for leagues around is unpopulated may now never be found out; but its occurrence is curious.

The central figure in the topography of the Rio Tinto Mines, as seen from a distance, is a dark red range of hills, consisting of three prominent peaks, and the most imposing of these is called Solomon's Hill at the present day. It has borne this name for centuries. In 1637 the then King of Spain gave a title to rework the mines and galleries situated at the Rio Tinto in the hill called after Solomon. On both its flanks were carried on those mining and smelting enterprises which we have shown were the outcome of Phœnician enterprise.

The second occurrence of the same name again is a most curious coincidence; but we have still as strange a one in the name of the town Zalamea la Real, distant some four miles from the Rio Tinto Mines. The form which the name of this town now has is distinctly identical with the ordinary Spanish rendering of the name Solomon. From time immemorial it has been thus known, although with different affixes, and curiously enough we find that in 1557 it was called Zalamea la Vieja, or the ancient town of Solomon. There can be no reason whatever to doubt that it has brought its name down from the time of the expulsion of the Moors by the Christians, and we cannot better bring out this point than by quoting from an able Spanish writer, whom we have already mentioned with frequency. (1.) "Is then this coincidence a creation of caprice which causes us to consider the name of Zalamea as derived from '*Salomea*,' or is its historical etymology a truth? Will the naming of the said Hill of Solomon be a symbol applied in modern times to the wealth enclosed by that hill as being like that of this monarch rather than a tributary memorial on the part of the emissaries of Hiram? Such a supposition cannot be upheld, for the existence at Rio Tinto of the wealth now known to be found there was not dreamt of until comparatively recent times.

That the names of antiquity were frequently passed down to modern times through the centuries of the Gothic and Moorish occupations of Spain is made evident by mentioning such well-known cases as Malaga, Cadiz, Cordova, and Carthagena, which were the ancient Malaca, Gades, Corduba, and Carthago Nova.

Whether this demonstration can be considered a proof must be left to individual criterion, but no one will deny its pertinence. If admitted, it causes to obtain that Hiram, the Phœnician, extracted from the mines of Huelva the copper which he supplied to Solomon for the building of his temple, and would almost prove definitely that the Tarshish of the Bible is synonimous with the Tartessus of the ancients.

Whatever be the interpretation put on the foregoing, it is only an incident, although certainly a most interesting one, and does not in any way affect our main question, as Solomon lived well within the extremes laid down for the Phœnician exploitation of this mining district, which we have seen was carried on more or less energetically during the period which extended from 1200 B.C. to 650 B.C.

Roman Exploitation.

When the Romans expelled the Carthaginians from Spain (B.C. 205) they became for practical purposes the dominating element in the country, and, knowing the greatness of their enterprises one would expect to find the mining industry receiving the special attention of the States. This, however, does not seem to have been the case. They respected the private ownerships of existing mines, whilst those that had formerly belonged to the Carthaginian State were simply leased, sold altogether, or reserved; and we may be sure that this manner of treating the mines would throw them into the hands of the adventurous of those days.

So far as Huelva is concerned, it has been seen that the Carthaginians have left no indications of their working; therefore we must suppose that the mines of this district were rediscovered, so to say, after their dominion had ceased When this rediscovery took place it is difficult to say. In fact, we know of nothing which could elucidate the point. The opening up of these mines in modern times has shown us that the ancients simply worked the richest spots, and their writers have even left us data upon this point. Now, these rich pockets were not easily or quickly found by a race who had no knowledge of blasting operations, and although the main masses of pyrites are, as a rule, easily discoverable, yet those of themselves were not rich enough for the ancients. Again, we may be quite certain that their system of smelting and metallurgy took a number of years to develop.

However, be the reason what it may, the active working of the Huelva mines does not seem to have commenced immediately after the expulsion of the Carthaginians, for until about 75 B.C. we have no notice of them. About this time Posidonius, who lived somewhere between 130 B.C. and 50 B.C., visited Spain, staying 30 days at Gades (Cadiz), and testified to the activity and diligence of the Turdetanians (Andalusians), who were in the habit of cutting tortuous and deep tunnels, and of draining the runs of water which they frequently encountered by means of Egyptian screws.

It may be adduced that this refers to Andalusia in general, and need not necessarily be taken as applying to that part of it in which the Huelva mines occur. Such an objection, however, cannot be taken to the following further extract from Strabo:—"A chain of mountains parallel to the Bœtis (Guadalquivir) extends towards the north. . . . They enclose a quantity of mines. . . . Near the site called Cotinas is produced copper and gold. These mountains are to the left of those who ascend the river. . . . The Anas (Guadiana) is also navigable, but not for such a length nor with such large vessels. Its edges are also bordered by mountains which contain mines."

(To be continued.)

INSTITUTION OF MINING AND METALLURGY.—The third annual general meeting of the Institution of Mining and Metallurgy will be held on Wednesday evening in the Geological Museum, Jermyn-street, S.W., to receive the report of the Council and the statement of accounts for the financial years 1892-3, to announce the result of elections to the Council, and to receive the President's inaugural address.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, MARCH 16

Copper.

THE G.M.B. market opened firm on Monday at £40 13s. 9d. s.c., and improved, on moderate buying, to £40 17s. 6d. s.c. and £41 7s. 6d. three months. There was a further slight improvement on the following day, when up to £41 was paid for spot, and on Wednesday £41 3s. 9d. was touched, this proving to be the highest of the week. Thursday's business passed off steadily at £41 and £41 1s. 3d. s.c., but to-day showed an improvement of 1200 tons for the fortnight, the value rose nearly 5s., and we close firm at £41 5s. to £41 7s. 6d. s.c., and £41 15s. to £41 17s. 6d. three months. No transactions in furnace material have been advised this week.

Tin

opened with a continuation of the upward movement, and spot Straits changed hands at £66 12s. 6d. up to £67 5s. Tuesday brought a further rapid advance to £68 15s. The advance was partly due to "bears" covering, and this operation continuing on Wednesday, the market remained firm, though values were a shade easier. On Thursday, however, there was less firmness in the tone, and more disposition to sell. The effect of this change of phase was seen in a fall to £67 7s. 6d. on that day, and a further decline to £66 7s. 6d. on Friday. The market closes firmer, however, at £66 17s. 6d. to £67 three months, and £67 12s. 6d. to £67 15s. three months. In the Dutch market Billiton opened at 40½ fl., and rose to 41 fl., but closes ½ fl. lower.

Pig Iron

Scotch shipments last week were 6425 tons, or 2314 tons less than in the parallel week of 1893. The Glasgow market opened quiet at 43s. s.c. Scotch, gave way to the extent of ½d., but subsequently rose to 43s 4d. The close is steady at 42s. 11½d., while Middlesbrough is quoted at 35s. 11½d. and hematite 45s. The London market has been, as usual, practically a dead letter.

Lead

is a quiet market at lower quotations, viz., £9 3s. 9d. to £9 5s. soft foreign, and £9 6s. 3d. to £9 7s. 6d. English.

Spelter

shows no essential change. Dealers have been buying rather more freely, but consumers still maintain their reserve. We quote for ordinaries £15 13s. 9d. to £15 15s., and for specials £15 15s. to £15 17s. 6d.

Antimony

is quite unaltered in price at £36, and there is nothing to report on as to the general position of the article.

Quicksilver

remains steady at £5 12s. 6d. firsts, and £5 12s. seconds.

The following are to-night's (March 16) prices of metals;—

	£ s. d.	£ s. d.
Copper.		
Tough cake and Ingot	43 0 0	43 15 0
Best selected	44 0 0	45 0 0
Sheets and sheathing	51 0 0	52 0 0
Flat bottoms	54 0 0	55 0 0
Chili bars, Good merchantable, Copper tubes, seamless (spot, & 3 months respectively)	41 5 0	41 15 0
	—	0 0 7½
Alloys.		
Brass: Wire	—	0 0 8½
,, Tubes (solid drawn)	—	0 0 8½
,, Sheets	—	0 0 8½
Phosphor Bronze: Alloys II.	—	88 0 0
,, ,, III. or V. (Cog Wheel Brand)	—	93 0 0
,, ,, VII. (Cog Wheel Brand)	—	95 0 0
,, ,, XI. (Cog Wheel Brand)	—	90 0 0
,, ,, Vulcan brand A1 B.C.	80 0 0	85 0 0
Duro Metal	80 0 0	85 0 0
Bull's Metal	—	70 0 0
Ferrobronze (Vivian's).		
Ingots, per lb.	0 0 5¾	—
Ordinary sheets, plates, bolts and bars	0 0 6¾	—
Screw bolts and nuts	0 0 8¾	—
Pump rods, plain	0 0 7¾	—
,, finished	0 0 10¾	—
Delta Metal: No. 4 (per ton)	—	73 10 0
,, Sheets and plates (per lb.)	0 0 10½	—
,, Bars, round, square, flat (per lb.)	0 0 9½	—
,, ,, hexagon (per lb.)	0 0 9	—
Tin.		
English, ingots, f.o.b.	71 15 0	72 5 0
,, bars	72 15 0	73 5 0
,, refined	73 15 0	74 5 0
Straits, spot and 3 months respectively	66 17 6	67 12 6
Australian spot, and three months respectively	67 10 0	68 5 0
Banca ,, (in Holland)	75 10 0	75 12 6
Tin Plates: Charcoal, best quality per box	0 14 0	0 15 0
,, ,, ordinary	0 11 6	0 12 0
,, Coke, best quality	0 10 6	0 11 0
,, ,, ordinary	—	0 10 0

These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 2 11½
,, Scotch pig, No. 1 Gartsherrie	—	2 11 6
,, ,, Coltness	—	2 17 0
,, ,, Clyde	—	2 9 0
,, ,, Govan	—	2 4 6
Bars, Welsh, f.o.b. Wales	—	5 5 0
Plates ,,	—	6 5 0
Bars, Staffordshire, at works	—	5 12 6
Sheets ,, ,,	—	6 15 0
Plates ,, ,,	—	6 12 6
Hoops ,, ,,	—	5 17 6
Ship plates, Middlesborough	—	4 17 6
Steel: English spring nominal	according to quality	9 0 0 ..... 20 0 0
,, ,, cast		16 0 0 ..... 85 0 0
,, Rails at works, 50 lbs. per yard and upwards		3 15 0 ..... 3 18 9
,, ,, light, at works, according to section (extra)		0 10 0 ..... 2 0 0
Lead.		
Spanish or soft foreign	9 3 9	9 5 0
English pig, common	9 6 3	9 7 6
,, L.B.	—	9 15 0
,, sheet and bar	—	10 7 6
,, pipe	—	10 17 6
,, red	—	12 2 6
,, white	—	16 10 0
,, patent shot	—	13 15 0
Spelter.		
Silesian ordinary brands	15 13 9	15 15 0
,, special brands	15 15 0	15 17 6
English Swansea	16 5 0	16 7 6
Sheet Zinc	18 5 0	18 10 0
Antimony.		
Antimony	—	36 0 0
Quicksilver.		
Flasks, 75 lbs. warrants	5 12 6	5 12 0
Manganese.		per unit.
Ore, c.i.f., U.K. ports: 1st quality, 50 per cent. and upwards	—	0 1 8
2nd ,, 47 per cent. to 50 per cent.	0 0 10	0 0 11
3rd ,, 40 ,, 47 per cent.	0 0 8	0 0 10
Aluminium.		Per lb.
98-99½ per cent. (guaranteed 98 per cent. min.) in Ingots (1 cwt. lots)		0 2 6
do do (5 cwts. and up)		0 1 11
Nickel.		
98-99 per cent. guaranteed	0 1 7½	0 1 8½

Messrs. Bennett and Druce, Preston, have received instructions from Messrs. Horrockses, Crewdson, and Co. (Limited), the well-known cotton spinners, to instal a complete system of electric light in the new mill in course of erection. The plant will consist of three 500-light dynamos, two of which will be driven by the main engine, and a third off a special vertical engine. An interchangable system of wiring has been devised by Mr. Druce, of this firm, so tha complete failure of the light will be an impossibility. About 900 lamps will be installed in the mill, and the whole promises to be one of the largest and most complete mill installations in Lancashire.

AT West Kitty, owing to the low price of tin, part of the mine is to be stopped, and at Carn Brea similar action is reported to be imminent; this means discharging hands at the surface, as well as underground.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron "Cost Book" principles: I in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and 1, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

*** *The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.*

BRITISH MINES.

Name.	Closing Price, Mar. 16, 1894.	Closing Price, Mar. 9, 1894.	Par.	Latest Dividend	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Atlas .....*T*	—	—	1 0	—	0 12 6	12,000	Devon	Camborne.
Blue Hills .....*CT*	1/- 3/-	3/-	*	2/- May '81	6 11 6	6,000	Cornwall	Camborne.
Botallack ... ...*T*	—	—	*	—	51 4 6	2,220	Cornwall	St. Just.
Carn Brea .....*T*	12 12¼	12¼	*	2/6 Dec., '93	21 5 0	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..*T*	2/6 7/6	7/6	*	—	28 15 4	4,900	Cornwall	Camborne.
Cumberland .....*L*	—	—	1 0	5% May, '88	1 0 0	55,000	Cumberland..	7, Angel-court E.C.
Cwmystwyth	—	—	1 0	—	1 0 0	5,000	Cardigan	
Derwentwatr.*CLZ*	—	—	1 0	—	1 0 0	10,000	Cumberland..	Manchester.
Devon Gt Cons.*CA*	1⅜ 1⅜	1⅜	5 0	3/- Nov. '93	2 0 0	10,000	Devon	8, Finsbury-circus.
Dolcoath .....*T*	71 72	68½	*	5/- Jan. '94	9 12 6	4,000	Cornwall	Camborne.
Drakewalls *CTM*	—	—	1 0	—	1 0 0	100,000	Cornwall	Dashwood House.
East Blue Hills *T*	—	—	*	—	1 18 3	4,583	Cornwall	79¼, Gracechurch-st.
East Grassington *L*	—	—	1 0	—	1 0 0	20,000	Yorkshire	Palmerston-building
East Pool .....*AT*	10¾ 11¼	10¾	*	5/- Oct. '93	0 9 9	6,400	Cornwall	Illogan.
Gawton .....*CA*	—	—	50/-	—	2 7 0	12,000	Devon	20, Great St. Helens.
Great Laxey.....*L*	2½ 3½	3¼	4 0	5/- Apr., '92	4 0 0	15,000	Isle of Man ..	Douglas, Isle of Man.
Green Hurth ...*L*	—	—	1 0	-/6 June '89	0 19 0	32,000	Cumberland..	Newcastle.
Halkyn .....*L*	—	—	1 0	2/- Sep, '93	1 0 0	10,000	Flintshire.....	Chester.
Hexworthy .....*T*	—	—	1 0	—	1 0 0	18,335	Devon	6, Queen-street-place
Isle of Man .....*L*	—	—	5 0	5/6 Sep. '93	5 0 0	14,000	Isle of Man ...	Chester.
Killifreth .....*T*	3¾ 3¾	3¾	*	3/6 Dec. '93	5 6 3	6,000	Cornwall	Truro.
Kingside.....*LR!*	—	—	1 0	3/- May, 1892	1 0 0	15,919	Cardiganshire	6 Queen-street-place
Lead Hills .....*L*	17/6 22/6	22/6	6 0	3/- Sep. '92	6 0 0	20,000	Lanarkshire...	30, Finsbury-circus.
Levant .....*CT*	—	—	*	10/- Aug., '93	11 9 6	2,500	Cornwall	Penzance.
Lovell .....*T*	—	—	*	1/3 Nov., '91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Minera (New) ...*L*	—	—	5 0	3/- Mar. '90	5 0 0	9,000	Denbighshire	Minera, N. Wales.
Nenthead Todle.*LZ*	—	—	1 0	6% Feb., '91	0 18 6	48,8 5	Northumberld	Newcastle-on-Tyne
New Balleswidd'n *T*	—	—	1 0	—	1 0 0	50,000	Cornwall	St. Clement's Ho., E.C
New Cooks Kitn. *TC*	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
Pedn-an-dres ...*T*	—	—	*	—	4 3 6	7,000	Cornwall	Redruth.
Phœnix United *TC*	6/- 7/-	7/-	*	1/- Mar. '90	6 9 9	12,000	Cornwall	Liskeard.
Polberro & Trev. *T*	—	—	*	—	1 11 6	18,000	Cornwall	37, Walbrook.
Prince of Wales *TC*	2/- 2/-	3/-	10/-	—	—	—	Cornwall	6, Draper's-gardens.
Roman Gravels *L*	—	—	10/-	—	—	—	Salop	11, Queen Vic.-st., EC
Rushen .....*L*	—	—	1 0	5% Sept. '91	1 0 0	26,131	Isle of Man ...	Douglas.
So. Condurrow *TC*	5/- 10/-	10/-	*	3/6 Apr. '93	7 12 1	6,123	Cornwall	20, Great St. Helens
South Crofty *TA*	2 2¼	2	*	—	16 16 6	6,120	Cornwall	Pool, Cornwall.
South Darren ... *L*	—	—	—	—	—	—	Cardiganshire	6A, Austin Friars.
South Frances ...*T*	—	—	*	—	18 1 0	4,500	Cornwall	Redruth.
Tincroft .....*T*	11 11½	11	*	3/- Dec. '93	15 7 6	6,000	Cornwall	Carn Brea.
Weardale .....*L*	—	—	4 0	1/3 Oct. '90	1 5 0	50,000	Durham.....	3, Lombard-court.
West Frances ...*T*	17/6 22/6	17/6	—	2/6 May, '89	15 15 1	6,144	Cornwall	Camborne.
West Kitty .. ...*T*	6½ 7	6½	*	4/- Jan, '94	0 12 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ..*TA*	1½ 2	2¼	*	2/6 Aug. '88	22 0 8	6,000	Cornwall	Redruth.
Wheal Basset .. *TC*	3 3½	3¾	*	10/- Apr. '88	12 0 10	6,144	Cornwall	Redruth.
Wheal Friendly..*T*	2/- 4/-	4/-	*	—	0 11 3	10,000	Cornwall	37, Walbrook, E.C.
Wheal Grenville *T*	13½ 14½	14½	*	3/- Feb. '94	17 10 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty.....*T*	7/6 12/6	12/6	*	3/- Mar. '88	7 9 6	4,295	Cornwall	Truro.
Wheal Metal A F.*T*	—	—	*	—	0 13 9	10,784	Cornwall	79¼, Gracechurch-st.

AUSTRALIAN AND NEW ZEALAND MINES.

Achilles Gld Fld	2 2¼	2¼	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas , E.C.
Aladdins Lamp *G*	1⅝ 1¹¹⁄₁₆	1¹¹⁄₁₆	1 0	1/- Feb.'54	1 0 0	100,000	N S Wales ...	4-6, Throg. Avenue.
Anglo-Saxon ....*G*	—	—	1 0	2/- July, '89	1 0 0	51,000	Queensland ..	4, Lombard-court.
Australasian ..... *G*	2/3 2/9	2/6	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland ..	6, Queen-st. place
Australian ..... *C*	—	—	20 0	1/6 Aug. '93	7 7 6	18,315	So. Australia	15, Old Jewry Chbrs
Aus. Bro. Hill Con.	1/6 1/9	1/9	1 0	1/- June, '91	1 0 0	540,000	N. S. Wales ..	Winchester House.
Blue Spur & G. G	-/6 1/-	1/-	1 0	—	1 0 0	75,926	New Zealand	6, Gt. St. Helens'
Bonnie Dundee *G*	2/9 3/3	2/9	1 0	—	0 17 6	120,000	Queensland ..	3-5. Gracechurch-st
Brilliant Block ..*G*	1¹⁵⁄₁₆ 1¹⁵⁄₁₆	1¹⁵⁄₁₆	2 0	—	2 0 0	250,000	Queensland ...	2, Gracechurch-st.
Brit. Brok. Hill *S*	2/- 3/-	3/6	5 0	—	5 0 0	240,000	N. S. Wales ...	Abchurch Chambers.
Broker Hill Prop	2¹⁵⁄₁₆ 2¹⁵⁄₁₆ xd	2¾	8 0	1/6 Dec. '93	0 8 0	960,000	N. S. Wales ...	Abchurch Chambers.
Carrington.....*G*	2/- 3/-	3/-	12/6	—	0 12 6	100,000	Queensland ...	9, Tokenhouse Yard.
Coromandel .....*G*	5/16 3/8	3/8	1 0	—	0 12 6	95,000	Queensland ..	20-1, 8 Swithin's-la.
Craven's Cal.	2/6 3/6	3/6	6 0	-/3 Nov. '93	0 4 8	100,000	Queensland ..	N. Queensland Bldg. E.C.
Croydon King Blk	—	—	5/-	—	0 5 0	60,000	N. Queensland	Leadenhall Bldg. E.C.
Cumbrind (New)*G*	-/9 1/3	1/3	1 0	2/6 Dec. '87	1 0 0	200,000	Queensland ..	Blomfield House.
Day Dawn B. & W. *G*	4/3 5/3	5/-	1 0	-/6 Mar. '92	1 0 0	494,400	Queensland ...	3-5, Gracechurch-st.
Day Dawn P. C. *G*	4/9 5/3	5/-	1 0	-/6 Apr, '92	1 0 0	490,000	Queensland ...	Winchester Ho., E.C.
Eaglehawk.....*G*	1/- 1/6	1/6	1 0	—	0 18 5	120,000	Victoria..... ..	31, Lombard-street.
Etheridge .....*G*	— —	—	5 0	—	0 5 0	324,790	Queensland ..	6-7. Queen-street-pl.
Golden Gate..... *G*	1/- 1/6	1/6	10/-	—	1 0 0	150,000	Queensland..	9, Tokenhouse Yard
Glenrock .....*G*	2/6 3/-	3/-	1 0	—	0 19 6	225,000	N. Zealand ..	3-5, Queen-st. E.C.
Harrietville .....*G*	— —	—	1 0	-/6 July, '90	1 0 0	146,330	Victoria.....	6-7, Queen-street-pl.
Kaboonga .....*G*	1/4½ 1/7½	1/7½	10/-	—	0 10 0	500,000	Queensland ..	30, St. Swithin's-la.
Kangarilla .....*S*	-/9 1/3	1/3	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street.
Kapanga.....*G*	-/6 1/-	1/-	1 0	-/6 Jan. '91	0 18 9	250,000	N Zealand ..	9, New Broad-street
Kilkivan	— —	—	1 0	—	1 0 0	120,000	Queensland ...	4, Coleman-street.
Midas G. F. ... *G*	— —	—	1 0	—	1 0 0	180,000	Victoria.....	32, Poultry, E.C.
Mills' Day Dawn*G*	1⅜ 1¾	1¹⁵⁄₁₆	1 0	-/3 Sep, '93	0 15 9	300,000	Queensland ..	3, Gracechurch-st.
Moruya ..... *GS*	— —	—	1 0	—	1 0 0	59,235	N. S. Wales ..	16, St. Helen's-place.
Mosman .....*G*	4/- 4/6	4/9	1 0	-/3 Jan. '94	1 0 0	185,000	Queensland ...	3-5, Gracechurch-st.
Mt. Leyshon .... *G*	1/- 1/6	1/6	1 0	-/6 Dec. '90	1 0 0	157,989	Queensland ...	7, Draper's-gardens.
Mountain Maid *G*	1/8 2/6	2/6	10/-	—	0 8 3	58,000	Queensland...	Leadenhall Bldgs.
Mt. Morgan Ex. *G*	2¹⁵⁄₁₆ 2¹⁵⁄₁₆ xd	2¾	5/-	—	0 2 0	180,000	Queensland ...	4, Tokenhouse Bldgs
Mt. Shamrock *GB*	— —	—	1 0	—	1 0 0	275,000	Queensland ...	13, Basinghall-st E.C
Mount Zeehan.....	-/6 1/-	1/-	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
New Queen ..... *G*	8/9 9/3	9/3	1 0	-/6 Oct. '93	0 19 6	158,915	Queensland ...	30, St. Swithin's-la.
Port Phillip .....*G*	— —	—	5 0	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C.
Queen's Bthdy Un	— —	—	1 0	—	0 10 0	—	Victoria	7-8, Gt. Winchester St.
Queens. Smelting	3⅛ 3⅝	3⅛	1 0	—	1 0 0	36,344	Queensland ...	9, Tokenhouse Yard.
Scottish Australian	¾ ⅞	1¹⁵⁄₁₆	1 0	—	1 0 0	200,00	N.S. Wales ...	Winchester Ho. E.C.
Sunburst	— —	—	10/-	-/6 Mar. '92	0 10 0	150,000	Queensland ...	9, Tokenhouse Yard.
Tasmanian Crown	— —	—	1 0	—	1 0 0	175,000	Tasmania	8, Old Jewry, E.C.
Tipperary	— —	—	1 0	—	1 0 0	35,000	N. Zealand ...	3-5, Queen-st., E.C.
True Blue	1/6 2/6	2/6	1 0	—	1 0 0	53,000	Australia	Leadenhall Bldg. E.C.
Victoria.....	— —	—	1 0	-/6 Dec. '93	1 0 0	144,000	Char. Towers	32, Gresham-st., E.C.
Victory..... *G*	⅜ ⅝	⅜	5 0	—	0 5 0	200,000	Queensland ...	32, Gresham-st , E.C
Waihi..... *G*	1¹⁵⁄₁₆ 1¹⁵⁄₁₆	1¹⁵⁄₁₆	1 0	1/- Jan, '94	1 0 0	150,000	New Zealand	11, Abchurch-ln. E.C
Wentworth Ord.*G*	6/- 6/6	7/-	1 0	6/- Jan. '93	1 0 0	500,000	N. S. Wales ...	4-6, Throgmort. Ave

INDIAN AND ASIATIC MINES.

Balaghat Mysore*G*	4/9 5/3	5/6	1 0	—	1 0 0	160,000	India	6-7, Queen-street-pl.
Burma Ruby.....*R*	6/3 6/9	4/3	1 0	—	0 17 0	300,000	Burmah	Suffolk House, E.C.
Champion Reef...*G*	3⅝ 3¾	3¹¹⁄₁₆	1 0	—	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central .. *G*	-/4½ -/7¼	-/9	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel..... *G*	5/16 3/8	3/8	1 0	—	0 12 6	120,000	India	6-7, Queen-st.-place.
Devàla Moyar ...*G*	— —	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane.
Gemming & Mining	— —	—	2 0	—	1 7 6	24,456	Ceylon	183, Gresham House.
Gold Fids Mysore*G*	24/3 24/9	25/-	1 0	1/- July '92	1 0 0	200,000	India	6-7, Queen-street pl.
Gold Fids Siam *G*	— —	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec. ..	— —	—	10 0	—	10 0 0	1,000,000	Deccan	16, St. Helen's-place
Kempinkote Gd Fd	1/1⅝ 1/4	1/4	5 0	—	0 3 0	698,650	India	6-7, Queen-st.-place.
Mysore ..... *G*	3¹⁵⁄₁₆ 3¹⁵⁄₁₆	2¹⁵⁄₁₆	1 0	3/- Mar, '94	1 0 0	225,000	India	6-7, Queen-street pl.
Mysore Reefs ...*G*	13/- 14/-	13/6	1 0	—	0 19 0	200,000	India	6-7, Queen-street-pl.
Mysore West ...*G*	3/9 4/3	3/-	1 0	—	1 0 0	130,000	India	Dashwood Ho., E.C.
Mysore Wynaad *G*	1/6 2/-	1/9	1 0	—	1 0 0	250,000	India	Dashwood Ho., E.C.
Nine Reefs .....*G*	2/- 2/6	2/9	10/-	—	0 10 0	250,000	India	6-7, Queen-street-pl.
Nundydroog..... *G*	1⅜ 1⅝	1¹⁵⁄₁₆	1 0	1/- Mar. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Def.O.)*C*	4¾ 5	5	1 0	3/6 Dec. '93	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10% Pref.).	5¼ 5⅝	5⅝	1 0	3/6 Dec. 93	1 0 0	120,000	India	6-7, Queen-street-pl.
Pahang Corpn. ...	2/6 3/6	2/6	1 0	15% Apr, '89	1 0 0	200,000	Malay Penin.	Blomfield Ho., E.C.
Pahang Kahang...	— —	—	1 0	—	1 0 0	394,740	Malay Penin.	4a, Jeffrey's sq., E.C.
South Indian Mysore*G*	5/6 6/-	6/3	4/-	—	0 3 9	133,074	India	6-7, Queen-street-pl.
Springdale.....	2/6 3/-xd	3/3	4/-	18¾% Dec. '93	0 4 0	200,000	India	20, Abchurch n. E.C.

EUROPEAN MINES.

Alamillos .....*L*	10/- 15/-	15/-	2 0	1/6 Mar. '92	2 0 0	35,000	Spain	6, Queen-street-place
Argentella .....*C*	— —	—	1 0	—	1 0 0	132,165	Corsica	16, Philpot-lane.
Bratsberg .....*C*	— —	—	1 0	—	0 18 0	120,000	Norway	1, Gresham-buildings
English Cr. Spelter	⅝ ¾	⅝	1 0	5% Dec. '92	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ... . *L*	¾ ⅞	⅞	2 0	1/3 Mar. '92	1 0 0	25,000	Spain	6, Queen-street-place
Libiola.....*C*	3⅝ 3¾xd	2¹⁵⁄₁₆	5 0	2/6 Sept. '92	5 0 0	60,000	Italy	Dashwood Ho., E.C.
Linares .....*L*	3⅛ 3⅜	3⅛	3 0	5/- Sep, '93	3 0 0	15,000	Spain	6, Queen-street-place
Marbella .....*C*	60/- 61/6	61/6	10 0	8% Aug. '91	10 0 0	25,000	Spain	78, Queen Victoria- st
Mason & Barry...*C*	2¼ 2⅝	2⅝	5 0	2/- May. '93	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar .....*G*	— —	—	5 0	—	0 4 6	117,240	Norway	6A, Austin Friars.
Pestarena .....*G*	1/8 2/-	2/-	3 0	—	3 0 0	67,709	Italy	6-7, Queen-street-pl.
Pontgibaud .....*L*	10 12	12	20 0	12½% Dec. '92	20 0 0	14,000	France	6-7, Queen-street-pl.
Rio Tinto .....*C*	14⅞ 15	14¹⁵⁄₁₆	10 0	7/- Nov., '93	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	103½ 104½	104	100 0	5% Jan. '91	100 0 0	2,158,960	Spain	30, St. Swithin's-lane
Do. (2nd do.)	102 103	103½	100 0	5% Jan. '91	100 0 0	1,127,180	Spain	30, St. Swithin's-lane
Sipanji .....*NQ*	6/8 7/6	—	1 0	—	0 19 0	85,000	Servia	Liverpool.
Tharsis.....*C Sul*	4⅝ 5	5¼	2 0	15% Apr. '93	2 0 0	625,000	Spain	Glasgow.
West Prussian Pre.	10 10¾	10¼	10 0	8% Jan. '93	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	16 16	16	10 0	8% Jan. '93	10 0 0	14,050	Germany	Walbrook Ho., E.C.

NORTH AMERICAN MINES.

Name.	Closing Price, Mar 15, 1894	Closing Price, Mar. 9, 1894.	Par.	Latest Dividend.	Called up per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Almada and T.. *S*	-/3 -/9	-/9	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle...*S*	1/- 1/5	1/6	1 0	-/6 Mar. '91	1 0 0	400,000	Colorado	25A, Old Broad-street.
Big Creek	— —	—	1 0	1/- Dec. '91	1 0 0	80,098	Nevada	2, Pancras-lane, E.C.
California	— —	—	10/-	-/6 May '90	0 8 9	129,571	Colorado	St. George's Ho E.C.
Canadian Phos. *C*	¼ ⅜	¼	1 0	-/6 Nov. '90	1 0 0	73,334	Canada	155, Fenchurch-st.
Chispas	— —	—	1 0	—	1 0 0	221,876	Mexico	33, Broad-st. Av. E.C.
Colorado Silver...*S*	— —	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs. E.C.
Cortez	— —	—	1 0	3% Feb. '93	1 0 0	300,000	Nevada	Suffolk House, E.C.
De Lamar.. .....*GS*	21/- 22/-	22/6	1 0	1/- Jan. '94	0 19 9	400,000	Idaho	6, Draper's-gardens.
Dickens Custer *GS*	— -/3	-/3	1 0	—	0 19 9	420,000	Idaho	Winchester Ho. E.C.
Elkhorn .....*S*	9/6 10/6	10/6	1 0	1/- Dec. '93	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma .....*S*	-/3 -/6	-/9	5 0	—	0 5 0	367,788	Utah	15, Geo-st, Mansn. Ho
Flagstaff .....*S*	-/3 -/6	-/6	1 0	—	0 18 3	240,000	Utah	Dashwood Ho., E.C.
Garfield ..... *GS*	— —	—	1 0	-/6 Dec. '88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Golden Feather *G*	6/6 7/6	7/6	1 0	—	1 0 0	189,000	California ...	8, St. Stephen's Cs E.C.
Golden Gate.....	1/- 1/6	1/6	1 0	—	0 18 6	79,600	California ...	St Stephen's Cs E.C.
Golden Leaf..... *G*	-/6 1/-	1/3	1 0	—	1 0 0	200,259	Montana	8, Draper's Gardens.
Golden Valley...*G*	3/- 4/-	4/-	1 0	—	1 0 0	55,507	Colorado	5, Copthall-bldgs. E.C.
Harquahala.... *G*	19/- 20/-	20/6	1 0	—	1 0 0	30,000	Arizona	6, Draper's Gardens.
Ho comb Valley *G*	-/6 -/9	-/10½	5 0	—	0 5 0	540,000	California ...	14, Cornhill E.C.
Idaho..... .....*GS*	-/7½ /10½	-/10½	1 0	—	0 4 8	224,967	Idaho	140, Leadenhall-st.
Jackson Goldfields	— —	—	5 0	—	0 5 0	408,635	California ...	6, Drapers' Gardens.
Jay Hawk ....*G*	6/6 7/6	7/-	1 0	-/6 Dec. '92	0 4 8	285,000	Montana	Dashwood House,
Kohinoor "B"*GS*	— —	—	1 0	-/6 June. '81	1 0 0	112,901	Colorado	Bloomfield Ho , E.C.
La Plata.....*S*	-/6 -/9	-/9	5/-	1/3 Oct. '82	0 4 3	405,000	Colorado	11, Poultry, E.C
Maid of Erin	— —	—	1 0	4c. psh Mar. '94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold	— —	—	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro (P) *G*	½ 1	1	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Mesq. d'l Oro (U) *G*	⅓ ⅜	⅜	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Montana	5/- 6/-	5/6	1 0	5% April '91	0 19 0	860,000	Montana	Gresham House, E.C.
New Colorado	— —	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Chambers E.C
N. Consolidated *SC*	— —	—	1 0	—	1 0 0	160,000	Eberhardt, U.S	19A, Coleman-street.
N. Eberhardt.....*S*	— —	—	5/-	—	0 3 6	548,576	Nevada	15, Angel-court, E.C
N. Gold Hill.....*G*	— —	—	1 0	—	0 19 9	491,045	N. Carolina ...	15, George-st., E.C.
New Guston .....*S*	7/- 8/-	8/-	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A, Old Broad-st.
New London	— —	—	2/6	—	0 2 6	327,816	New Carolina	55, Bishopsgt.-st Wn
N. Hoover Hill...*G*	— —	—	10/-	-/9 Dec. '85	0 10 0	120,000	N. Carolina ...	Langthorne Ho., E.C
Palmarejo ..... *GS*	1/10¾ 2/1¾	1/9	1 0	—	1 0 0	4,888	Mexico	4, Copthall-buildings
Pinos Altos.....*GS*	2/- 2/6	—	1 0	-/6 Mar.' 90	1 0 0	300,000	Mexico	110, Cannon-street.
Pittsburg Con. *G*	— —	—	1 0	1/6 Mar. '88	1 0 0	77,147	Nevada	Suffolk House, E.C.
Poorman Con.....	5/9 6/3	6/6	5/-	—	0 5 0	273,948	Idaho	5, Copthall-b gs. E.C
Red Mountain ...*S*	— —	—	1 0	—	1 0 0	46,666	Colorado	11, Poultry, E.C.
Richmond ...*GSL*	¾ ⅝	⅝	5 0	1/- Sep. '93	5 0 0	54,000	Nevada	44, Coleman-street.
Ruby ... .*GSL*	— —	—	5/-	—	0 5 0	221,371	Nevada	22 St. Mary Axe.
Sierra Buttes ...*G*	7/16 9/16	⅛	2 0	-/6 Oct. '93	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. *G*	11/3 13/9	13/9	2 0	-/9 Oct. '93	2 0 0	140,265	California	138, Leadenhall-st.
Springdale..... *G*	2/6 3/-xd	3/3	$1	—	$1	1,000 000	Colorado	20, Abchurch Lane.
United Mexican *S*	1/- 1/6	1/6	1 0	2/6 May, '87	1 0 0	906 654	Mexico	3, Gt. Winchester st.
Viola (New).....	— —	—	1 0	—	1 0 0	150,000	Idaho	Broad-st. House, E.C.

SOUTH AND CENTRAL AMERICAN MINES.

Antio. (Pref.) *G.S.*	— —	—	1 0	-/6 Mar. '90	1 0 0	22,458	Colombia	184, Gresham House
Antioquia (ordiny)	— —	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham House
Callao Bis.... .....*G*	-/10¼ 1/1½	-/9	1 0	—	1 0 0	320,000	Venezuela ...	50, Old Broad-street.
Camarones..... *C*	⅜	⅜	2 0	—	2 0 0	67,000	Chili	123, Bishopsgt. Wn.
Caratal..... *G*	-/4 -/6	-/7⅛	2 6	—	0 2 4	657,326	Venezuela ...	57, Moorgate-st. E.C.
Coton .....*G*	-/6 -/9	1/-	1 0	—	1 0 0	200,000	Colombia	5, Copthall-bldgs. E.C.
Colorado Nit. ...*N*	2⅝ 2⅞	2⅞	5 0	7/8 May, '89	5 0 0	32,000	Chili	17, King-st., Liverpl.
Colombian Hy...*G*	15/6 16/6	17/-	1 0	1/- Dec. '93	1 0 0	75,000	Colombia	10, Blomfield-street.
Copiapo .....*C*	1⅜ 1⅞	1⅜	2 0	2/- Dec. '93	2 0 0	100,000	Chili	Dashwood House, E.C
Darien.....*G*	— —	—	1 0	—	1 0 0	71,359	Colombia	Manchester.
Don Pedro.....*G*	¼ ⅜	9/-	1 0	—	1 0 0	133,102	Brazil	24-5, Devonsh. Cs E.C
El Callao .....*G*	1⅝ 1⅝	1⅝ xd	5 0	2 frc. Nov., '90	5 0 0	257,600	Venezuela ...	8, Bishopsgt.-st, Wn.
Frontino & B....*G*	19/6 20/6	20/6	1 0	1/6 Dec. '93	0 19 6	128,662	Colombia	184, Gresham House.
Glenrock .....*G*	2/6 3/-	3/-	1 0	—	0 19 6	199,948	Argen. (& Ind)	3-5, Queen-street, E.C
Glenrock (Pref.)...	— —	—	1 0	—	0 16 0	16,232	Argen. (& Ind)	3-5, Queen-street, E.C
Gravel.....*G*	4/9 5/3	5/6	1 0	—	0 19 0	100,000	Colombia	10, Blomfield-street.
Javali .....*G*	— —	—	2/-	12½% June '90	0 2 0	105,234	Nicaragua.....	139, Cannon-street.
Julia Nit. .....*N*	3/- 5/-	5/-	5 0	—	5 0 0	22,000	Chili	73½, Gracechurch-st.
Lautaro .....*N*	3⅜ 3⅝	3⅜	10 0	10/- Sep. '89	10 0 0	25,000	Chili	70, Grac

"THE MINING JOURNAL" SHARE LIST (African Mines continued).

Name.	Closing Price. Mar. 16, 1894.	Closing Price. Mar. 9, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Joe's Luck.....G	1/8 ‹ 2/6	2/6	1 0	—	1 0 0	57,404	De Kaap	11, Queen Vic.-st.
Jubilee .....G	5 11/16 5 13/16	5 11/16	1 0	30 % Oct. '93	1 0 0	30,000	Witwatersrdt.	8, Old Jewry.†
Jumpers .....G	4 3/16 4 5/16	4	1 0	—	1 0 0	100,000	Witwatersrdt.	29, Holborn Viaduct.]†
Kleinfontein .G	—	6/3	1 0	—	1 0 0	150,000	Witwatersrdt.	8, Old Jewry.
Klerksdorp ....G	1/6 2/6	2/6	1 0	—	1 0 0	150,007	Transvaal	110, Cannon-street.
Knight .....G	14/- 15/-	15/-	1 0	—	1 0 0	250,000	Witwatersrdt.	19, Bury-street, E.C.
Langlaagte Est. G	4 3/16 4 5/16	4 1/16	3 0	20 % July, '92	1 0 0	467,000	Witwatersrdt.	59, Holborn Viaduct.]
Lisbon-Berlyn ...G	2/9 3/-	3/5	2 6	—	0 1 6	889,233	Lydenburg ...	110, Cannon-street.
Luipaards Viei Est.	10/3 10/9	10/9	1 0	6 % Mar. '90	1 0 0	344,003	Witwatersrdt.	8, Old Jewry.
Main Reef.....G	5/3 5/9	5/9	1 0	—	1 0 0	300,000	Witwatersrdt.	Warnford-court.]
Manica Ophir	—	—	1 0	—	1 0 0	96,000	Mozambique..	2, Pinner's Court.
May Consol. .....G	9/9 10/3	10/3	1 0	—	1 0 0	430,000	Witwatersrdt.	4, Lothbury.†
May Deep Level .G	6/9 7/3	9/3	1 0	—	1 0 0	148,000	Witwatersrdt.	33, Cornhill, E.C.
Metropolitan .....G	1 3/16 1 5/16	1 3/16	1 0	—	1 0 0	76,500	Witwatersrdt.	1, Crosby Square.]
Meyer & Charl....G	5 3/4 5 3/4	5 5/16	1 0	35 % July '93	1 0 0	71,627	Witwatersrdt.	Warnford-court.]
Mitchell .....G	—	—	1 0	—	1 0 0	45,000	Kimberley.	
Modderfontein.. G	6/- 6/6	7/6	1 0	—	1 0 0	200,000	Witwatersrdt.	Warnford-court.]
Moodies G.&E....G	7/ 8/6	9/-	1 0	-/4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry.]
Moodies (15/- p.)G	2/6 3/6	3/6	1 0	—	0 16 0	120,000	De Kaap	8, Old Jewry.
Namaqua C	15/- 20/-	20/-	2 0	2/6 July '91	2 0 0	194,331	Namaqualand.	34, Leadenhall-bldg.
New Chimes..... G	1 1/4 1 3/4	1 3/8	1 0	—	1 0 0	70,000	Witwatersrdt.	8, Old Jewry, E.C.
New Cronsus..... G	1 5/16 1 7/16	1 7/16	1 0	5 % Aug. '92	1 0 0	195,008	Langlaagte	4, Bishopsgt.-st., Wt.
New Jagersf. ...D	15 1/2 15 1/2	15 1/2	10 0	—	10 0 0	100,000	Transvaal	5, Copthall-buildings
New Primrose ...G	4 3/4 4 3/4	4 3/4	1 0	4/- July, '93	1 0 0	230,000	Witwatersrdt.	2, Draper's-gardens.
Nigel .....G	2 13/16 2 15/16	2 7/8	1 0	10 % Dec. '93	1 0 0	160,000	Witwatersrdt.	1, Crosby-square.
Nooitgedacht E. G	—	—	1 0	—	1 0 0	160,000	Lydenburg ..	8, Old Jewry.
Oceana .....G	2 1/16 2 3/16	2 3/16	1 0	25/- Nov. '89	1 0 0	150,000	Transvaal	4, Sun Court, E.C.
Ophir Concess. ...	-/9 1/3	1/3	1 0	—	0 18 0	111,857	E. Coast Africa	31, Lombard-street.
Orange F.S.E. ...D	3 3/4 4 1/4	4 1/4	1 0	—	1 0 0	284,000	Orange F. State	10, Moorgate-street.
Oriental .....G	1/6 2/-	2/-	1 0	—	1 0 0	448,450	De Kaap	Jamaica-bgs. Cornhill
Otto's Kopje.....D	1/- 1/6	1/6	1 0	—	0 19 3	800,000	Kimberley ...	113, Cannon-st., E.C.
Paarl Central... G	7/8 1 1/16	1	1 0	—	1 0 0	135,750	Transvaal	29-30, Hol. Via., E.C.

Name.	Closing Price. Mar. 16, 1894.	Closing Price. Mar. 9, 1894.	Par.	Latest Dividend.	Called up Per Share.	Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Pigge Peak .....G	-/6	-/6	1 0	—	1 0 0	230,326	Swaziland ...	6, Queen-street-place.
Potchefstroom ... G	3/- 4/-	4/-	1 0	—	1 0 0	161,000	Potchefstroom	19, Bury-st., E.C.
Princess Estate G	1 1 1/8	1	1 0	—	1 0 0	72,046	Witwatersrdt.	33, Cornhill, E.C.
Randfontein .....G	12/- 12/6	13/6	1 0	—	1 0 0	1,966,500	Witwatersrdt.	59, Holborn Viaduct.]
Read's Drift .....D	9/- 10/-	10/-	1 0	—	—	50,000	Transvaal	19, Finsbury circus.
Robinson .....G	5 3/8 5 1/16	5 1/8	5 0	4 % June '93	5 0 0	543,750	Transvaal	55, Holborn Viaduct.]†
Roodepoort Un. G	—	—	1 0	—	1 0 0	100,000	Witwatersrdt.	Warnford-court.]
St. Augustine ...D	-/4 1/2	-/4 1/2	1 0	—	1 0 0	465,000	Griqualand W	30-1, St. Swithin's-la
Salisbury New ...G	2 1/4 2 1/4	2 3/8	1 0	—	1 0 0	93,000	Witwatersrdt.	1, Crosby-square.]
Sheba .....G	21/6 22/-	22/-	1 0	-/8 Aug.. '93	1 0 0	614,450	Lydenburg ...	18, St. Helen's-place.
Sliati .....G	4/3 4/6	4/-	1 0	—	1 0 0	625,000	Zoutpansberg.	4, Sun Court, E.C.
Simmer & Jack...G	5 1/16 5 1/16	5 1/8	1 0	10 % Nov '93	1 0 0	85,000	Witwatersrdt.	33, Cornhill.
S. A. Gold Trust ...	17/- 18/-	18/-	1 0	10 % April '93	0 10 0	220,000	South Africa..	8, Old Jewry.
Spitzkop .....G	1/6 2/-	2/-	1 0	—	1 0 0	144,531	Lydenburg ...	15, Bishopsgt-st, Wt.
Stanhope .....G	1 5/16 1 7/16	1 5/16	1 0	50 % May. '93	—	34,000	Witwatersrdt.	1, Crosby Square.]
Sutherland E. ...G	3/10 1/2 4/1 1/2	4/6	1 0	—	0 18 0	220,000	Zoutpansberg.	3, Budge-row, E.C.
Tentonia.....G	—	—	1 0	—	1 0 0	96,000	Witwatersrdt.	8, Old Jewry.
Trans. Coal Trust...	11/8 12/3	12/-	1 0	-/6 Oct, '93	1 0 0	439,965	Witwatersrdt.	Broad-st. House, E.C.
Trans. Est. & Dev.	10/3 10/9	12/6	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.C.
Trans. Gold .....G	29/- 30/-	29/-	1 0	1/- Dec, '92	1 0 0	350,000	Transvaal	Soffolk House, E.C.
Trans. Land (15/-)	2/- 3/-	3/6	1 0	—	0 15 0	250,695	Transvaal	33, Cornhill.
Un. Ivy Reef.....G	1 5/16 1 1/16	22/6	1 0	—	1 0 0	45,000	Transvaal	110, Cannon-street
Un. Langlaagte ...	9/16 5/8	15/-	1 0	—	1 0 0	100,000	Witwatersrdt.	23, St. Swithin's la.
Van Ryn .....G	7/6 10/-	10/-	1 0	—	1 0 0	59,810	Witwatersrdt.	1, Crosby-square.]
Victory Hill .....G	—	—	1 0	—	1 0 0	103,000	De Kaap	Portland House, E.C.
Village Main Reef	4 5/8 4 11/16	4 3/4	1 0	—	1 0 0	132,000	Witwatersrdt.	8, Old Jewry.
Virginia.....G	—	—	1 0	—	1 0 0	48,335	Transvaal	28, Budge-row, E.C.
Vogelstruis .....G	—	—	1 0	—	1 0 0	150,000	Witwatersrdt.	34, Leadenhall-bldgs.
Wemmer .....G	4 3/16 4 11/16	4 7/8	1 0	10 % Nov. '91	1 0 0	55,000	Witwatersrdt.	19, Bury-street.]†
Witwatersrandt ...	—	—	1 0	—	1 0 0	250,000	Witwatersrdt.	19, Bury-st., E.C.
Wolhuter .....G	2 3/8 2 5/16	2 3/8	1 0	—	1 0 0	120,000	Witwatersrdt.	Warnford-court.†
Worcester .....G	1 3/8 2	1 3/8	1 0	—	1 0 0	90,727	Witwatersrdt.	8, Old Jewry.]
Zwartland Land ...	—	—	1 0	—	0 16 0	150,000	Transvaal	19, Birchin-lane, E.C.

MINING IN CORNWALL AND DEVON:

NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

HAPPILY, there is something more than the mere expectations of hope upon which to congratulate ourselves this week, for we have an instalment—a small instalment, it is true, but still a definite one—in the way of accomplishment. Tin has had a real and clear recovery from the lowest depths, and with the recovery of tin has come something of a revival in business in the share market, coupled with an advance in prices. We do not, indeed, wish to make too much of the movement, at any rate so far as it has gone; but the facts are plain enough in themselves and very cheering for the future, and we, believe, for the more immediate future also. Nothing would surprise us less now than a really substantial recovery ere Midsummer.

THE ticketing shows a very marked and a very gratifying advance, though it is rather curious to see Penpoll lagging so far in the general rear. It is hardly possible to resist the conclusion that the Cornish smelters feel more confidence than the outside broking interest; and it cannot be denied that so far as purchasers go, they are far more ready to show their faith by their works. The fact that the quantity ticketed was no less than 322 tons makes the advance of the greater value; but, of course, it will take a good many improvements equal to that of Tuesday to bring the market into a really healthy and satisfactory condition.

THE Wheal Uny examinations have really been the main topic of the week, and as everyone interested knows, have resulted in the declaration of the Vice-Warden that Mr. Strauss has completely exonerated himself from all blame. It is, of course, very easy in this, as in all other matters, to be wise after the event, but it must now be plainly evident that an injustice was done in allowing a part of the enquiry to be made public before a full opportunity had been given for reply to the allegations made. The result is that while Mr. Strauss has had to suffer some temporary annoyance, his position is really improved, however, by the complete refutation he has been able to give to all statements either direct or by implication.

THERE are indications of considerable activity in railway matters in the West just at the present moment, and the Great Western Railway are now seeking powers to raise money to the tune of something like £180,000 for the purpose of improving the Cornwall Railway, which, if in the interests of that traffic alone, sorely needs it. Then the North Cornwall Railway is steadily pushing on. It has already been found of very considerable advantage to the famous Delabole Quarries. In Devon two sets of railway extension proposals have specially been prominent—one to open up North Devon by a line from Torrington southward, and another to open up the South Harms area. As to both of these there are differences of opinion as to route, &c., and neither have any direct bearing upon mineral traffic or development.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

BALKIS EERSTELING.—In a letter, dated February 9, the manager at Eersteling reports as follows:—"The reef in the west end of the 160 feet level is looking well, over 2 feet wide, and worth from 8 to 10 dwts. of gold per ton. I look upon it as very favourable to find the reef at this level auriferous throughout."

BAYLEY'S REWARD (Coolgardie).—Report dated February 2 (by telegraph):—Forwarding by escort to-day 2300 ounces gold. Now breaking grand stone 100 feet level, heavy gold all along bottom of level, which proves rich shoot going down; almost certain will cut some rich shoot 200 feet level. Stopes back of 50 feet level looking well as ever. Very important discovery shaft on No. 180 lease at 110 feet; rich stone showing centre of reef, which is 8 feet wide. Accident to new panklast delayed us two days."

BIRTHDAY GOLD.—Crushing for February 570 tons, produced 275 ounces, 26 days working.

BUFFELSDOON ESTATE AND GOLD.—Result of last month's crushing yielded 2970 ounces of gold. We have had the mine inspected; everything was found to be thoroughly satisfactory. Prospects are very good.

CARRINGTON.—The manager cables:—"The assay value of the ore, which is now being taken from the upper part of the Victoria underlie shaft, is 1 ounce 12 dwts. per ton." The directors regard this as very favourable, and, judging by the correspondence, they expect that rich shoots of stone will be found when the levels are driven on either side.

CROWN REEF.—The London Agents have received advice by cablegram from the head office at Johannesburg that the new 120 stamp mill started working on 5th of March, and is crushing in first-rate style.

ELKHORN.—"Bullion produced in the mill for the week ending March 10, 1894, 9700 ounces."

FERREIRA.—Copy of cablegram received from Johannesburg:—"Results for February: Tons crushed, 3542; bar gold extracted, 4338 ounces; concentrates caught, 135 tons; assay value of concentrates, 5 ounces fine gold per ton. Cyanide Works: Bullion produced from tailings, 860 ounces."

GELDENHUIS ESTATE AND GOLD.—A cablegram has been received from the head office at Johannesburg, as follows:—"Last month's (February) profit was £3800."

GELDENHUIS DEEP.—The London agents (The Exploration Company, Limited), have received the following cable from the head office in Johannesburg:—"165 feet from the shaft in No. 2 level struck main reef, appearances normal, pans well, full particulars will be telegraphed later."

GELDENHUIS MAIN REEF.—"In February 350 ounces of gold were obtained from the cyanide works."

GLENCAIRN MAIN REEF.—"Production for February, 3462 ounces."

GLENROCK.—Premier Mine: Cable advice from Dunedin, states:—"Cyanide has been very successful, 62 tons of tailings produced 148 ounces of gold.—Main shaft: Have struck lode in the shaft."

GUADALCAZAR QUICKSILVER.—The quantity of quicksilver drawn off during the week ending March 8, as cabled from the mines, amounts to 4000 lbs.=53½ flasks.

JAY HAWK AND LONE PINE.—The directors have received the following telegram from the manager, viz.:—"Have cut the lode in the 1500 feet level Lone Pine Mine; very rich. Have driven 11 feet on vein."

JUMPERS.—A cablegram has been received from the head office at Johannesburg, as follows:—"Last month's (February) profit was £7500."

KABOONGA.—The following cable has been received from the manager at the mine:—"South west drive 926: South east drive 915, laminated quartz face of the drive; bore in my next telegram."

KAPANGA.—The directors have received the following telegram from the manager, Capt. W. H. Argall, viz.:—"During the past month the shaft has been sunk 19 feet; total depth, 648 feet. Stringers of quartz have again been met with in the shaft."

LANGLAAGTE ESTATE (Block B).—Production for February, by cable:—"Mill: Ore crushed, 3601 tons of 2000 lbs.; gold retorted, 1331 ounces. Tailings, cyanide process: Tons treated, 7740 of 2000 lbs.; smelted gold recovered 852 ounces. Total gold recovered, 2183 ounces."

LANGLAAGTE ESTATE AND GOLD.—Production for February, by cable:—Mill: "Ore crushed, 19,553 tons of 2000 lbs.; gold retorted, 6051 ounces. Tailings, cyanide process: Tons treated, 29,040 of 2000 lbs.; gold recovered, 5003 ounces. Concentrates, cyanide process: Tons treated, 340 of 2000 lbs.; gold recovered, 975 ounces. Total gold recovered, 12,029."

MODDERFONTEIN GOLD.—During month of January 20 stamps at work 27 days; crushed 1882 tons, yielding 1141 ounces of gold.

MOODIE'S GOLD.—Returns for month of February:—Claims rented or leased from the company, 263; number of tons crushed by claimholders, 680; yield of gold from ditto, 590 ounces.

MOSMAN.—The directors have received from the manager at Charters Towers the following cablegram:—"Have crushed during the fortnight, 294 tons of quartz from the Wyndham shaft for 296 ounces of gold. The fortnight's expenses (both of North Australian and Wyndham Mines) are £1000. I estimate the value of the quartz at grass upon which mining expenses have been paid at £2400. We are now crushing North Australian stone. The approximate value of the above return is £1050."

MOUNT ZEEHAN (Tasmania).—The following telegram has been received from Hobart, dated 13 inst.:—"Have treated during past fortnight 325 tons of ore, yielding 65 tons of concentrates, containing about 45 tons 10 cwts. of lead, and 5850 ounces of silver."

NEW SPES BONA.—The following telegram has been received:—"During February the mill ran 24 days, crushing 4408 tons of ore, producing 1373 ounces of gold. 5908 tons of tailings were treated by the cyanide process, and yielded 950 ounces of gold, total 2323 ounces of gold." The total production in January was 2307 ounces.

NEW PRIMROSE.—"Production for February, 7947 ounces; 100 stamps running 26 days. Profit, £3300." It will be observed that although the crushing is for a short month, the profit is £1360 higher than that of January.

No. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers:—"Since my last report, Heath and party working under No. 3 western level has crushed 11 tons for 3 ounces of gold. Eddy and party working over the same level, crushed 9 tons 15 cwts. for 3 ounces 5 dwts. Hall and party under No. 1 western level, crushed 22 tons for 32 ounces of gold. Cook and party also crushed 16½ tons for 11 ounces 14 dwts. of gold; this is from the No. 4 stulls. Goninon and party have taken one of the stulls over the No. 3 level. Perry and party have also taken a small block under the No. 3 eastern level."

ORITA.—The following cablegram has been received from the superintendent relating to run No. 75:—"We have cleaned up £200, the cost during the run being the same amount. We have recommenced washing."

PAARL CENTRAL.—Cablegram has been received from the Head Office, at Johannesburg, stating the following results for last month (February):—"Crushed, 3716 tons: yielding 1312 ounces of gold."

PAHANG CORPORATION.—The directors have received the following cablegram giving the output for February:—"In 12 days' work (of 24 hours each) 325 tons of stone were crushed, producing 25½ tons of black tin. 20 head of stamps. Working costs £950."

QUEEN'S BIRTHDAY UNITED.—The directors have received the following mail advice from Mr. W. T. Hansford, the company's local secretary at Dunolly, dated February 5:—"Queen's Birthday Mine, main shaft, 500 feet level: Men are engaged here in breaking out stone in the stopes. A little gold is still shown in the stone every shift made. We consider we have a good prospect at this point.—Centre shaft: Contractors are busy erecting poppets, platform, &c., preparatory to raising stone, but while this necessary work is being done, we are compelled to stop the works below to prevent any possibility of accident to the men. The Government Inspector has given us notice that we must provide ourselves with a new patent cage, both to Centure and Main shafts, costing about £25 in each case, and the same will have to be complied with.—Belgium and Perseverance Mine, contractors main shaft: We have been easily able owing to an exceptionally fine season to keep the works free of water. Three shifts of men are employed at the crosscut to intercept the Belgium reef from the 200 feet level. Ground continues very hard and progress is rather slow. The crosscut is in from shaft 32 feet, leaving some 80 feet more to be driven before the lode is reached."

RANDFONTEIN ESTATES.—Production for February: By cable: Mill: Stamps running, 40. Ore crushed, 4734 tons of 2000 lbs. Gold retorted, 2705 ounces.—Tailings, cyanide process: Tons treated, 2590 tons of 2000 lbs. Smelted gold recovered, 352 ounces. Total gold recovered, 3057 ounces. The decrease on the output is due to delay caused by heavy rains, and by the connection of the new 60 stamp battery which will start work on the 15th March.

ROBINSON.—The following cable has been received from the head office at Johannesburg to-day:—"Profit for month of February, £30,500."

SOUTHERN LAND.—This company has just received cable advices from its manager at Vryburg, announcing the sale of about one-sixth of the farms comprised in the block of 1000 square miles it holds in British Bechuanaland, at prices averaging about 100 per cent. above their cost to date. The manager adds that the prospects of disposing of the remainder of the farms are encouraging.

SPITZKOP.—The following telegram has been received from the mine:—"Mill, 122 ounces, February."

TRANSVAAL COAL TRUST.—The following is copy of a cablegram received from the Transvaal Coal Trust Company (Limited), at Johannesburg, with reference to that company's operations for the month of February:—"Output 1',900 tons. Profit £3200."

VICTORY (Charters Towers).—The London office has received the following cablegram from the head office in Sydney:—"Crushing (for the fortnight) from No. 2 shaft 385 tons for 588 ounces of gold."

VILLAGE MAIN REEF.—Mill ran 25 days, crushed 2900 tons, which yielded 2650 ounces free gold and 84 tons of concentrates, assaying 7 ounces. Tailings assayed 6 dwts.

LISBON-BERLYN.—Under date the Fields, 15th March, the manager, cables—"New mill and the cyanide plant working. Shall require financial assistance at the end of the month for the last time."

FORTHCOMING MEETINGS.

*** *We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies' will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned —in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.*

Name of Company.	Date.	Nature of Meeting.	Place.	Time.
Elkhorn Mining Company ...	Mar. 19	General	Winchester Ho	12 noon
Mysore Gold	Mar. 20	General	Cannon-street	12 noon
Ottoman Railway Co.	Mar. 20	General	Winchester Ho	12 noon
Shelton Iron, Steel, & Coal Co	Mar. 20	General	Winchester Ho	12 noon]
Brown Bayley's Steel	Mar. 20	General	Winchester Ho	2 p.m.
Nundydroog Company.....	Mar. 21	General	Cannon-street	12 noon
Smokeless Powder Co.	Mar. 22	General	Winchester Ho	12 noon

The LIST of APPLICATIONS will be CLOSED not later than One o'clock on THURSDAY, the 22nd day of March, 1894, for TOWN and COUNTRY.

THE SOMERSET PETROLEUM WELLS, LIMITED.

Incorporated under the Companies Acts, 1862 to 1890.—Capital £60,000, divided into 60,000 shares of £1 each. 20,000 of the above shares, fully paid up, will be allotted to the vendors in part payment for the transfer of their rights, as hereinafter mentioned. The balance of 40,000 are now offered for subscription, payable 10s. on application, and 10s. on allotment.

Directors.

Hon. Philip B. J. Petre, 20, Collingham Place, S.W.,
Fred. W. Honischer, Esq., 30, Lime Street, London, E.C.
James Arthur Bush, Esq., Bristol.
*Dr. Newton Wade, Shepton Mallet, Somerset.
* Will join the board after allotment.

Bankers.

Messrs. Brown, Janson, and Co., Abchurch Lane, London, E.C.
The Wilts and Dorset Banking Company (Limited), Salisbury, Wilts, and all Branches.

Solicitors.

Messrs. Devonshire and Co., 1, Frederick's Place, Old Jewry, London, E.C., and 16, Great George Street, Westminster.

Brokers.

Messrs. Betton, Sayce, Vaughan, and Co., 10, Clare Street, Bristol.

Auditors.

Messrs. Jackson, Pixley, Browning, Husey, and Co., 58, Coleman Street, London, E.C.

Consulting Engineers.

Messrs. Bainbridge, Seymour, and Co., 13, St. Helen's Place, London, E.C.

Secretary and Offices (*pro tem*).

25, BUCKLERSBURY, E.C., LONDON.

ABRIDGED PROSPECTUS.

This company has been formed to acquire the benefit of a license and agreement for a lease dated 21st February, 1894, to search for and work petroleum oil on the Ashwick Estate, near Shepton Mallet, Somersetshire.

The remarkable fact of the existence of petroleum under this estate has been proved beyond doubt by a discovery made by Dr. Wade, then resident at Ashwick Court, who for the last two years has been inconvenienced by the occurrence of a taste of petroleum in the water of the well on his premises. It appears that some time ago, immediately after a slight shock of earthquake had passed over this neighbourhood, his servant, who filled a saucepan from the well to boil potatoes, discovered the pan to contain a large amount of oil, and acquainted Dr. Wade with the fact, when he caused the well to be pumped, and found a large quantity of petroleum had exuded from the bottom of the well. Dr. Wade stated that he filled seven or eight 40-gallon casks with the oil obtained, which he used in his household for burning in his lamps, after roughly filtering the same, the oil producing a bright white light.

Specimens of the oil have been examined by Mr. Boverton Redwood, who pronounces it to be petroleum of an excellent quality, with a specific gravity of 816 at 60° Fahrenheit, and a flashing point of 175° Fahrenheit by the closed test.

The discovery of such petroleum in Great Britain is a circumstance of special interest and importance, and what makes this discovery of greater importance and interest is the fact that while there have been many finds of petroleum oil throughout Great Britain during this century, nothing at all resembling the Ashwick oil, either in pureness or quality, has ever been found, excepting that lately found in Wales, referred to in the report mentioned below.

In order to guide the directors in carrying out operations, the services of Mr. Boverton Redwood, the mineral oil expert, and Mr. Topley, were secured, and they have made a voluminous and technical report on the property, under date 5th March, 1894.

It is proposed, under the direction of these experts, to at once commence boring operations, starting first on the site of the well, and afterwards on various parts of the estate.

In a subsequent report, dated 12th March, 1894, Mr. Boverton Redwood states as follows:—

"THE OCCURRENCE OF PETROLEUM AT SHEPTON MALLET.

"On the 10th inst. a small charge of 3½ ounces of gelignite was exploded under my personal supervision at the bottom of the well at Ashwick Court. The water in the well was less than 10 feet in depth at the time, and it contained about the same proportion of petroleum in globules as on the occasions of my previous visits. The concussion, which was plainly felt on the surface, evidently had the effect of liberating petroleum from the rock in which the well is sunk, for the quantity of oil accompanying the water discharged from the pump soon afterwards increased to an extent which was certainly remarkable considering the smallness of the charge exploded. I regard this result as undoubtedly affording confirmation of the statements made to Mr. Topley and myself by Dr. Wade and others, and of the deductions in respect to the existence of petroleum in this locality to which our investigations had led us. In this view Mr. Topley, whom I have since consulted on the subject, concurs. (Signed) "BOVERTON REDWOOD.

"12th March, 1894."

A contract has been prepared and will be entered into between the vendors and the company prior to allotment, for acquiring the full benefit of the license, which comprises, first, the right to search for and work petroleum; secondly, the option of a lease for 21 years of any land selected under the provisions of the license.

The purchase money has been fixed at the sum of £40,000, payable as to £20,000 in fully paid shares, £5000 in cash, and the balance in cash or shares at the option of the company. The surface rents are nominal, and the royalty payable to the owners of the estate is considered moderate, with a minimum royalty of £100 per annum.

Prospectuses, with forms of application for shares, may be obtained at the offices of the company, and the brokers, bankers, and solicitors; and the original reports and licence, and also the form of contract above mentioned, may be inspected at the office of the solicitors.

15th March, 1894.

THE IMPERIAL INSTITUTE.—In a pamphlet just issued on the Department of Scientific and Practical Research of the Imperial Institute, Sir F. A. Abel states that it has been considered indispensable to enlist the active interest and to secure the advice and co-operation of some eminent men of science who have identified themselves with the work of research in natural products, or in particular branches of applied science bearing upon the varieties of work which it is desired to accomplish. A committee of advice has been appointed, and the members have adopted a scheme of action which appears likely to lead to the achievement of the scientific and practical results arrived at. These results are to make the public acquainted with the resources of various countries, to enable men connected with commerce and industry to compare the products of particular classes furnished by the several countries, and also to direct the attention of those practically interested in them to new or little known natural products, and to furnish trustworthy information as to the nature, properties, and value. The following are members of the committee of advice and the subjects with which they will deal:—Professor Roberts-Austen, F.R.S., C.B. (metallurgy, fuel, and ores); Mr. Bennett Brough, A.R.S.M. (metallurgy, mining, and minerals); Mr. H. A. Miers (mineralogy), Mr. Boverton Redwood (petroleum). Sir F. Abel, F.R.S., is director, and Mr. Theodore Cooke, LL.D., is secretary of the committee.

REPORTS FROM THE MINES.

*** We find it necessary to announce that, owing to the vast numbers of mining reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.*

BRITISH MINES.

DEVON GREAT CONSOLS.—W. Clemo, March 15: Watson's engine shaft: In the 172 level east the lode has improved and is very promising It is yielding 2 tons of copper and mundic ores per fathom. The lode in the 160 fathom level east is producing saving work of copper and mundic ores. In the 148 fathom level east the lode is 4 feet wide, yielding 5 tons of copper and mundic ores per fathom. All other points of operation throughout the mines are without alteration.

DRAKEWALLS,—J. Hosking and T. Chapman, March 14: During the week the shaftmen have been employed fixing lift from the 175 to the 147 fathom level, &c. The cross cut through the lode at the 160 fathom level east of the engine shaft is producing occasional stones of mundic, but the lode is very hard, and composed almost altogether of capel. The cross cut is about 10 feet into the lode. We have been drawing tinstuff from the 175 fathom level, which is much more productive than any stuff we have elsewhere. There is no change to notice in the stopes.

GREEN HURTH.—March 9: Annie's vein: During the past week the vein at the south forehead has been poor, but to-day has opened out more favourable, worth 2½ tons per fathom. The stope in the back of the above level has reduced a little in value, worth 2½ tons per fathom. The south drivage from the sump, the vein here is looking well, carrying better in the roof; this is worth 3 tons per fathom. Branch vein above 30 level the south end is not so rich for ore to-day worth 2 tons per fathom. At the north enn the vein is poor. We are expecting daily to meet with a north-west branch, as referred to in my previous reports.—Yours obediently, W. Gray.

LEADHILLS. — W. H. Paull, March 12. — Brown's Vein: Expect to have the accumulated water out to resume the 160 fathom level south of Jeffrey's shaft in a couple of days. The 160 fathom north of Wilson's shaft is in a vein above 4 feet wide, mixed with quartz, but without ore. The winze below the 145, north of Wilson's shaft, is in a vein above 4 feet wide, containing nice spar and ore worth 20 cwts. per fathom. The stope above the 145, north of Jeffrey's shaft, is worth 30 cwts. of ore per fathom. The stope above the 130, north of Jeffrey's shaft, is worth 25 cwts. of ore per fathom. The 115 fathom level, north of Jeffrey's shaft, is in a promising vein above 4 feet wide, chiefly spar, and producing good stones of ore. The rise above the 115, north of Jeffrey's shaft, is worth 35 cwts. of ore per fathom. Still cleaning out No. 2 stope above the 115, north of Jeffrey's shaft. No. 3 stope is worth 40 cwts. of are per fathom. The 115 fathom level, south of Wilson's shaft, is in a vein 4 feet wide, mostly stone, and keeping rather unpromising for producing ore. The 100 fathom level, north of Jeffrey's shaft, is in a vein above 4 feet wide, carrying a nice rib of spar on the footwall, but without ore. The sinking below the 100 north of Jeffrey's shaft is just communicated to the stope above the 115. The 100 fathom level south of Wilson's shaft is in a vein 3 feet wide of a very promising character, yielding occasional stones of ore. From our experience in the level above we should soon be in productive ground here. The winze below the 85 south of Wilson's shaft is in a vein above 4 feet wide, mainly composed af stone and spar but entirely without ore; we hope to effect a communication between the winze and the 100 in the coming week. Nos. 1 and 2 stopes above the 85 south of Wilson's shaft are worth 90 and 25 cwts. of ore per fathom respectively. No. 2 winze below the 70 south of Wilson's shaft shows a vein 3 feet wide of a strong, kindly nature, but without ore at present. The stope above the 50 south of winze is worth 45 cwts. of ore per fathom. The stope below the 35 south of Flat Rod shaft is worth 80 cwts. of ore per fathom. The stope above the 35 south of Flat Rod shaft is worth 25 cwts. of ore per fathom.—Sarrowcole vein: Gripp's adit south of George's Roust vein is in a vein above 4 feet wide, strongly mixed with quartz and spar, but without ore.

NEW MINERA.—Mining report for the two weeks ending 9th March:—255 yard level, four men on tribute estimated to produce 10 tons lead ore and blende per month. 275 yard level east of No. 2 rise on north lode, six men on tribute, lode worth 2½ tons blende per fathom, estimated to produce 16 tons per month. West of cross cut on middle lode, two men on tribute, lode worth 1½ ton blende per fathom, estimated to produce 3 tons per month. 295 yard level, stope on north lode, west of cross cut, lode 9 feet wide, worth 3 tons blende per fathom. East of winze on north and south lode four men on tribute, lode worth 2½ tons blende and lead ore per fathom, estimated to produce 9 tons per month. East of sump two men on tribute, lode worth 2½ tons lead ore and blende per fathom, estimated to produce 4½ tons per month. West of sump two men on tribute, lode worth 3 tons blende per fathom, estimated to produce 5 tons per month. West of pass two men on tribute, lode worth 3 tons blende per fathom, estimated to produce 5 tons per month. 315 yard level driving east of main cross cut worth 1 ton lead ore and blende per fathom. West of incline shaft, two men on tribute, lode worth 2½ tons blende per fathom, estimated to produce 5 tons per month. Stope near forebreast, two men on tribute, lode worth 2½ tons blende per fathom, estimated to produce 5 tons per month. West of winze, two men on tribute, lode worth 2 tons blende per fathom, estimated to produce 4 tons per month. East of incline shaft in bottom of level, lode worth 3 tons blende per fathom, two men on tribute, estimated to produce 4½ tons per month. Rise north of incline shaft stopped. 335 yard level driving east of incline shaft on tribute and yard work, lode worth 1½ ton blende per fathom. West of incline shaft, two men on tribute, lode worth 2 tons blende per fathom, estimated to produce 4½ tons per month. East of incline shaft, two men on tribute, lode worth 3 tons blende per fathom, estimated to produce 4½ tons per month. West of rise, two men on tribute, lode worth 2½ tons blende per fathom, estimated to produce 4½ tons per month. Near forebreast, two men on tribute, lode worth 1½ ton blende per fathom, estimated to produce 3½ tons per month.—Dressing: 48 tons blende sent off since last report, making the total quantity sold 3871 tons of blende and 1689 tons of lead ore.

POLBERRO.—March 12: The lode in the 26 east on Pink lode has improved in size and character since our last report. The lode is now fully 4 feet wide and yields 16 lbs. tin to the ton. The lode in the 26 west is still disordered by the "crossing." The ground in the 20 west is easy for driving, and we are making very satisfactory progress here, the present end being 13 fathoms from the winze. The lode here has a kindly appearance and yielding good stones of copper ore. There is no change in the 26 crosscut north except that the water has rather increased of late.—(Signed) Charles Thomas, John Harper.

PRINCE OF WALES.—S. Roberts and J. Prowse, March 15: The crosscut is now in 19 fathoms. Yesterday we cut a branch 7 or 8 inches wide, which we think is a branch belonging to the lode, at the north of which the ground is of a softer nature and mixed with lode stuff, evidently showing the lode to be near at hand.

WEARDALE.—Report on Weardale Company's mines for week ending March 10: Groverake: Slate sill drift west vein more sparry, worth 10 cwts. per fathom. Firestone drift east vein 4 to 5 feet wide, of spar, looking better for ore, worth 12 cwts. per fathom. Adamson's drift west vein 3 feet wide of spar, rather improved in ore, worth 14 cwts. per fathom. Firestone drift west sparry vein, firmer and slower to work, worth 8 cwts. per fathom. The 60 fathom level east unchanged. Groverake cubic fathom stopes worth 10, 12, 16, 20, 12, 10, 12, 12, 14, 12, and 10 cwts. per fathom.—Boltsburn: Cross cutting south from Watt's level ground firmer with, more spar and ore intermixed, worth 8 cwts. per fathom. Forster's cross cut north the forehead is looking better for ore, but there is a want of spar, worth 8 cwts. per fathom. Stopes in vein and flatts worth 32 8, 34, 34, 26, 30, 20, and 32 cwts. per fathom. Driving east from Paul's to Bell's the ground is flatty looking and better for ore, worth 8 cwts. per fathom.—Greenlaw's: Watson's drift now in plate under the 6 fathoms hazel; the vein shows rather more spar, but very little ore. Nattrass Gill drift vein improved, more spar, end worth 12 cwts. per fathom. Stopes worth 14, 17, 17, 16, 17, 26, 20, 14, and 26 cwts. per fathom. Lee's sump drift now holed to Bland's drift, strong sparry vein, worth 20 cwts. per fathom.—Sedling: 56 level now opened 100 2-6 fathoms east from drawing shaft; a part of the vein has come into level, about 4 feet wide, seems poor, principally spar, not worked westward. The cross cut north at bottom of shaft in scar lime is now in 9 fathoms. Vein not yet cut, but indications favourable. The Flatt is strong, composed of hard rider, quartz, and fluor spar, with some ore. The 64 fathoms drift east has been driven 28 2-6 fathoms, vein 4 feet wide, of fluor spar and ore, worth 16 cwts. per fathom. The 64 fathoms drift west has been driven 25 3-6 fathoms. Vein straight, but quick, worth 10 cwts. per fathom, driving in plate. Stopes east and west of shaft, worth 14, 12, 14, 14, 16, 16, and 12 cwts. per fathom. Stobb's drift east, stope worth 12 cwts. per fathom. Ore raised for week 92 tons, ore dressed for week 112 tons, ore and slag smelted for week 135 tons, producing 70 tons of pig lead.

WHEAL FRIENDLY.—N. Vivian, March 13: In the 84 fathom end driving east of cross cut on the flat lode at £7 10s. per fathom, the lode continues to improve; it is now worth for tin £10 per fathom. We are opening up some good stoping ground in this level, and in a few months we shall have a large section of tin ground high and dry to take away. In driving east on the Pink lode the lode is 4 feet wide, all saving work for stamps.

COLONIAL, INDIAN, AND FOREIGN MINES.

NEW GUSTON.—The mine superintendent, under date February 21, reports, viz.: No. 5 level, south drift winze, distance driven north from east side of winze, 4 feet; total distance driven 22 feet; average width of ore 2 feet; average value of ore 50 ounces silver per ton; gold ¼ to ½ ounce per ton: copper 4 to 8 per cent. Depth of winze sunk 7 feet; total depth of winze 43 feet. Width of ore in bottom of winze 3 feet; average value 50 ounces silver per ton; gold ½ ounce per ton; copper 6 to 8 per cent. South drift, No. 1 stope, hieght of stope over back of level 55 feet; length 17 feet. No. 6 orebody stope, midway drift, distance driven south 19 feet, total distance driven from south end of old orebody stope 56 feet. —No. 7 level, north drift, No. 2 stope south of raise: Length of stope 48 feet; height over back of level 80 feet. Average width of ore 4 feet. Value from 8 to 13 ounces silver per ton. Gold, 1-10ths to 2-10ths ounce per ton.—No. 9 level, south drift: Distance driven, 12 feet; total distance driven from shaft cross cut, 100 feet. Width of ore in the forebreast, 17 feet. Value of ore, from 8 to 20 ounces silver per ton. Gold, 2-10ths to 4-10ths ounce per ton. Copper, three to six per cent.—South drift, stope: Length of ground excavated (in ore), 39 feet by 8 feet wide by 8 feet high. Value of ore, from 8 to 25 ounces silver per ton; gold, 2-10ths to 4-10ths ounce per ton; copper, three to eight per cent.—South drift, raise: A raise has been commenced (in the ore) for the purpose of communicating with the south end of the stope over this drift. Length of raise, 8 feet; height over level, 11 feet. Width of ore, 7 feet. Value from 1 to 30 ounces silver per ton; gold, 2-10ths to 4-10ths ounce per ton; copper, 4 to 8 per cent.—No. 10 level, north drift: Distance driven, 2 feet, total distance driven from shaft cross cut, 28 feet. Width of ore in the forebreast 2 feet. Value, from 8 to 14 ounces silver per ton; gold, 2-10ths ounce per ton. South drift, distance driven 12 feet, total distance driven from shaft crosscut 50 feet. Width of ore in the forebreast, 2 feet 6 inches. Value of ore from 7 to 12 ounces silver per ton; gold 2-10ths ounce per ton. South drift, raise, height raised 10 feet; total height of raise over level 18 feet. The raise has been communicated with the winze sunk from No. 9 level. Width of ore in the raise (where holed to the winze) 3 feet. Value from 10 to 20 ounces silver per ton; gold ½ to ½ ounce per ton, and about 3 per cent. copper. Main shaft, depth sunk 14 feet; total depth of shaft below floor of No. 10 station, 117 feet. 100 feet of skip road has been put in. Good progress is also being made with the cutting No. 11 station. The mine superintendent also reports under date February 23rd, viz.; Silverton Railroad: On Friday, February 9th, the Silverton Railroad closed down, owing to the depth of snow on the road. Wednesday, February 7th, was the last day they were able to get in to the Guston orehouse; since this date no shipments of ore have been made.—Sinking Main Shaft: On Saturday February 10th, the contractors completed their contract of sinking 100 feet of the main shaft. On the afternoon of the 10th we commenced to open in for No. 11 station.—Mining: I am pleased to say that the ore in the forebreast, south drift, at No. 10 level, is to-day 8 feet wide, and I have not a doubt but when we get south under the ore in No. 9 level, south drift, which ore is from 15 feet to 17 feet wide, we shall have ore quite as wide in No. 10, south drift.

PAHANG CORPORATION.—Sungei Lembing, February 2: I beg to submit to you progress report of mining operations for the month of January: Very fair progress has been made with Pollock's vertical shaft: the depth has been increased by 24 feet, making the total depth from surface 193 feet. The water is still rather troublesome, but the country rock has been favourable for sinking. In No. 1 level below the adit the drive west on the lode has been further advanced a distance of 46 feet, total length from cross cut 148 feet. The lode has been small during the month, but has produced good ore the whole of the distance driven. A connection has been effected with this drive and the winze A sunk in the east end of adit level, which has greatly improved the ventilation. The drive from Campbell's on Pollock's lode has been driven a further 32 feet, making the total length 577 feet; the lode for that distance has purchased from 2 to 4 feet wide, and the ore is of a very fair quality. The stope working on the western end of the ore shoot is still producing good payable tin from a lode of good size. As the drive passed through this good ore a slide or heave was met with, and about 40 feet east of the slide the two walls came nearly together, and the small quantity of ore between them became very poor. When the drive reached the point where the winze C sunk from the adit level west ought to have been intersected, and no signs of meeting with it, I then thought the above winze might have been sunk on another branch of the lode. I had the water balled out, and got a sound through to the drive, when I found the bottom of the winze was on the north or hanging wall side of drive, and we the winze was on the north or hanging wall side of drive, and we had to cross cut a distance of 6 feet to intersect it. The lode was small in the bottom of winze, but it produced payable ore the whole depth sunk from the adit. I started a drive back westward from the bottom of the winze. A distance of 26 feet has been driven, and the lode in the end at present in the bottom of the drive is 4 feet 6 inches wide, and of good quality. The drive eastward was continued on the small branch, and after driving about 40 feet further the lode the winze had been sunk on came in on the north side of drive, carrying ore of good quality. We have a leading stope following the drive, along which is also producing good ore Payable ore has still been coming to hand from Kolam Balam, but we have now stopped work there and shifted the miners to Pollock's adit level, to sink the B winze down to intersect the drive as it comes along westward from the shaft.—Jeram Batang: The drive westward in No. 2 above adit has been advanced a further 31 feet, total length from crosscut, 373 feet. The lode in the end at present is 3 feet wide, and I am glad to be able to report that it is now producing payable ore. It has only been met with during the past few days. As the No. 2 crosscut is about 55 feet farther eastward than the adit and No. 1 above, and should the payable shoot of ore pitch away eastward, as we find it is doing in Pollock's lode, the above shoot of ore ought to be met at a much shorter distance from the lower crosscuts.—(Signed) Wm. Straughan.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended 1st February: Block 96, Main Shaft, 280 feet Level East: No. 4 rise driven 9 feet, total 21 feet. Lode continues flat, and contains galena and specks of fahlerz. An assay of the former gave silver 30 ounces 4 dwts. 8 grains, lead 80·25 per cent. Incline sunk 6 feet, total 525 feet. Sinking resumed. Lode widening, and showing a little native silver and fahlerz, with galena. On the formation which was taken out of the openings on either side of incline mentioned in last report being examined on surface it was found to contain several small pieces of native silver. Men will be replaced here as soon as they can be spared from elsewhere. No. 4 level east of incline driven 7 feet, total 142 feet. A very important change has taken place here. Native silver was struck about 4 feet back from the end of drive, and still shows in the face. It appears to be making downwards associated with fahlerz and galena. No. 3 level east of incline driven 15 feet. Men now engaged in stripping lower side of level. A little galena and fahlerz are showing here. Stoping off 280 feet level west driven 12 feet. No ore showing here at present. 280 level west, prospecting drive, driven 18 feet, total 116 feet. After passing through about 20 feet of ore-bearing groundthe lode became pinched, and does not at present contain any ore. A bulk assay of the ore passed through gave silver 60 ounces 8 dwts. 16 grains. Lead 70·5 per cent.—Note: The quantity of rock mined during the fortnight was 2681 cubic feet.

BALAGHAT MYSORE.—Joseph Pryor, February 21: Ogle's Shaft: I am pleased to say we have almost completed cutting the necessary ground for tip plat, &c., and expect to resume the sinking of the shaft below the 800 feet level in the course of a day or so. The 800 feet level north has been driven 14 feet 3 inches, or 28 feet 9 inches from the shaft. The lode has recently improved, and now carries quartz of from 3 inches to 6 inches wide, but as yet it only assays 3 dwts. 17 grains per ton. I, however, think it will soon further improve both in valne as well as size. The No. 1 winze in the bottom of the 730 feet level north has been sunk 8 feet, or 59 feet below the level. As anticipated, the quartz here has improved, and shows indications of continuing to do so; it is now 8 inches wide, and assays 4 ounces 13 dwts. 8 grains of gold per ton. The stopes in the bottom of this level produce quartz of from 6 inches to 1 foot wide, and assay on an average 1 ounce 16 dwts. 21 grains of gold per ton. The stopes in the back of this level yield quartz of about 1 foot wide, and assay on an average 1 ounce 15 dwts. 14 grains per ton. The stopes in the bottom of the 660 feet level north produce quartz of from 6 inches to 1 foot wide, and assay on an average 1 ounce 5 dwts. 4 grains per ton.—Haine's Shaft: During the past fortnight we have cut various small streams of water; these so flooded the bottom of the shaft as to prevent our making the usual progress in sinking, consequently only 4 feet 9 inches have been sunk, making a total depth of 48 feet 6 inches below the level. The water has now somewhat abated, but the ground is disordered and the quartz pinched to about 9 inches wide, it however assays 10 dwts. 11 grains per ton, and I think will soon again improve in size. The 800 feet level south has been extended 11 feet 3 inches, or 149 feet from the shaft, the quartz varies from 1 foot 6 inches to 1 foot wide and assay 13 dwts. 1 grain per ton. The No. 1 winze in the bottom of this level has been sunk 8 feet, or 18 feet 9 inches below the level, the quartz is 1 foot wide and assays 7 dwts. 14 grains per ton. The stopes in the back of this level yield quartz of 15 inches wide and assay on an average 10 dwts. 19 grains per ton. The Midway or No. 2 winze in the bottom of the 730 feet level south has been sunk 6 feet 6 inches, or 48 feet 6 inches below the level, the quartz is now about 8 inches wide and assays 15 dwts. 20 grains per ton. The stopes in the bottom and back of the 730 feet level south yield quartz of 1 foot wide and assay on an average 17 dwts. 9 grains per ton.—Tennant's Shaft: This shaft has been sunk 10 feet 3 inches, or 49 feet 9 inches below the 285 feet level, the quartz averages about 2 feet 6 inches wide and assays 12 dwts. 3 grains per ton.—Surface: The general work at surface is progressing satisfactorily.

BONNIE DUNDEE.—Mine manager's report for fortnight ending January 27: Have continued stoping east of winze from No. 7 south west level. The reef averages about 16 inches, mixed through from 5 to 10 feet of formation; the stone is fairly mineralised. Have driven the crosscut from No. 8 plat 7 feet, total from shaft 139 feet. Four men are stoping from the back of crosscut from No. 9 south-west level. The reef averages a foot thick in hard formation, worth 1 ounce per ton. Two men are stoping from back of No. 5 south west level. The reef averages a foot thick, and shows fair gold. Have hauled 75 tons of stone for fortnight, making 105 tons in hopper. Have sunk No. 3 shaft a further 35 feet for the fortnight total depth 390 feet. Three drills are working; the ground is hard but good for blasting. Shall start on Monday to put in air pipes down underlie shaft, to enable us to get a rock drill at work as soon as possible in the cross cut from No. 8 plat, or any other part of the mine where it can be worked to advantage. The compressor and all other machinery is in good order and working well.

BRILLIANT BLOCK.—Mine manager's report for fortnight ending January 24: Underlie shaft has been deepened during the fortnight 3 feet by contract; the total depth below the No. 4 plat 111 feet. Reef in the bottom is 5 feet thick of medium quality. There is more water issuing from the reef in the bottom of shaft than has ever been before. This is a good sign of a strong reef in the deep ground. Have stopped sinking for the present, and have put down No. 5 plat and opened out No. 5 drives on a reef 4 feet thick in west drive and 5 feet in east drive. No. 4 level west has been extended 20 feet by contract; total from shaft 347 feet. The face is much the same as last reported on. Stoping is being carried on over No. 4 level west in three stopes on a reef from 1 to 3 feet thick of better quality than usual.—No. 4 Level East: The footwall drive has been extended 13 feet by contract; total from shaft 245 feet. The reef in the face is 3 feet thick, of good quality. The hanging wall drive on this level has been extended 15 feet; total from starting point 64 feet, and shows a reef 2 feet 6 inches thick, of good quality. Stoping is being carried on over these drives on from 1 to 2 feet of stone, of good quality.—No. 3 Level East: We are stoping in two small stopes over this level on 20 inches of stone, of good quality. We are now crushing with 20 head of stampers, and hope to keep them going if the reef in the bottom of the mine maintains its present size. Stone raised during the fortnight, 460 tons. Stone crushed at Bonnie Dundee mill 485 tons for 478 ounces 14 dwts. 12 grains of gold. The water haulage is the heaviest yet experienced.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, January 18: —During the past fortnight No. 9 level has been driven a further distance of 9 feet by three men on wages, and makes a total distance of 152 feet from the slide. The reef in this level is about 10 inches thick. In the first three stopes over the level the reef is about 10 inches also, but in the other two it is about 8 inches. No. 8 level has been extended a further distance of 7 feet by the new contractors Jones, Marks, Lissidini, and Fogarty, and is now 273 feet from the slide. The reef is about 8 inches in the present face. The reef in the six stopes over this drive will average about 9 inches of very nice looking stone. In No. 7 level there has been nothing done. In the first three stopes the reef is about 5 inches thick; in the other two it is about 7 inches. No. 6 level has been extended a further distance of 13 feet by three men on wages, making a total distance of 301 feet from the slide, and there is fully 8 inches of reef in the face of this level. The haulage of quartz for the fortnight is 128 tons, of which 103 tons went to the battery, and there remains 25 tons in the paddock.—(Signed) G. Cabassi.

FORBES REEF.—The mine manager reports progress for the month of January, under letter dated February 12, as follows:—Main Reef: Drives in from the sump north 71 feet, the breast of the drive is in a strong body of quartz, which does not carry free gold, but by fire assay ½ dwt. We are now in some 10 feet in the lode. It may carry gold on the footwall. This is the lode worked by the late Mr. Whitburn in the 200 feet level, and is the poor zone of the mine. The south drift should cut the rich shoot of the vein. It can be clearly seen that the rich portion has been driven south of the shaft by the dyke. I am certain it will be found rich. There can be no doubt that the so-called main reef is a boss, and the quartz material squeezed into cracks in the steatite during its ascent. The heat of the eruptive material was probably sufficient to produce change in the steatite. There must have been copious discharges of hot vapours and water, which would powerfully affect the adjacent rocks.—Avalanche: The heavy rains are very bad for these open works, side slip, which are very low grade stuff. The country is full of veins of quartz, some of which carry good gold, while others are barren. From these open works it can now be seen that the vein is only a crevice lode crossing the strike of the gold-bearing formation as reported in 1892.—Work done for the month of January: Avalanche: Drive to prospecting shaft 14 feet; pay dirt milled, 1170 tons; deads removed, 950 tons.—Main Shaft: Drive north bottom pit 27 feet. Shaft, a lot of dividers, and head boards put in during the month. T bob raised and shifted back 6 inches from pit. New holding down bolts put in to foundations and bearings strapped back. Natives cutting firewood. Avalanche ran 10 head 25 days 7 hours. Crushed 1170 tons. Won 129 ounces 2 dwts. 23 grains smelted gold. No. 1 mill ran 20 head 24 days 9 hours. Crushed 1040 tons pay dirt. Won 65 ounces smelted gold.—Tailings: Avalanche and No. 1 mill traces only.

HARRIETVILLE GOLD.—Fortnightly report of Mr. T. G Davey, superintendent, dated February 2: Mons Meg Mine; Winze on main shoot below tunnel D sunk 11 feet, total 106 feet. Lode continues wide but unproductive. We shall commence to drive north on course of lode in a few days.—Stopes: Lode formation at back of tunnel D including veinlets in sandstone on footwall from 15 feet to 20 feet wide, and assaying 3 dwts. per ton. Started another stope from main rise in which the lode is 6 feet wide, and carries visible gold. Average assay value 5 dwts. per ton. Lode in underhand stope at 290 feet level 4 feet wide, assaying 8 dwts. per ton. The stone here is of limited extent. Stoping has been suspended at back of this level on account of the extremely low grade of the ore. North stope at back of 240 feet level below tunnel J. Lode 2 feet wide, assaying 4 dwts. per ton. Underhand stope at 40 feet level. Lode 4 feet wide, carrying a vein 20 inches wide, which assays 18 dwts. per ton. Commenced to drive north 50 feet above J on vein 18 inches wide, which assays 8 dwts. per ton. No work has been done in Guerdon Mine during the fortnight, but we are about to stope south of rise south of tunnel J, where there is a payable vein.—Swindle Lode: Shallow tunnel towards Swindle lode advanced 25 feet, total 213 feet. Still meeting with quartz veins. Ground much softer.—Tiddledee Mine: Winze on new shoot below tunnel B sunk 2 feet, total 6 feet. Work suspended, lode being poor.—Surface: Drive north of tunnel under Jackass road advanced 22 feet, Lode, consisting of quartz veins and sandstone, very irregular and undefined, and carrying only colours of gold.—Tracey's Lode: Tunnel D is about to be extended towards Tracey's lode, which was fairly auriferous at and near the surface.

MAY CONSOLIDATED.—The directors submit the following report for the month of January:—Mine: Number of tons of ore mined, 5350 tons; number of tons of ore at grass, 4021 tons.—Battery: Number of stamps at work, 50; actual time running, 28 days 4 hours; ore milled, 5350 tons; yield (smelted gold), 2165 ounces; average yield per ton, 8·09 dwts.; average crushed per stamp per day, 3·79 tons; value of gold won (say) £7848 2s. 6d.—Analysis of expenditure: Mining and raising, 5350 tons, cost £2785 17s. 4d., equal to 10s. 4·97d. per ton; tramming, 5350 tons, cost £197 15s. 11d., equal to 8·87d. per ton; milling, &c., 5350 tons, cost £1415 13s. 1d., equal to 5s. 3·51d. per ton; development, £1317, equal to 5s. 1·50d. per ton; total, £5770 6s. 4d., equal to 21s. 6·85d. per ton; expended on construction, &c., £1718 0s. 9d.; total, £7488 7s. 1d.—Result: Gold won, valued at £7848 2s. 6d.; expended (less construction), £5770 6s. 4d.; net profit for month £2077 16s. 2d.

MOUNT ZEEHAN (Tasmania).—Manager reports for four days ending January 26: Argent Section, Main Engine Shaft, No. 6 Lode, 72 Feet Level North: Stope in back of level continued. Ore raised 86 tons 8 cwts. low grade seconds, and 7 tons 17 cwts. firsts. Lode is about 2 feet wide and carries good milling ore.—132 Level North: Stope continued. Ore raised 59 tons 16 cwts. low grade seconds. Lode is 9 feet wide, carrying fine grained galena disseminated throughout.—No. 4 Lode, 132 Feet Level South: Have stoped 14 tons 19 cwts. low grade seconds. Whip shaft has been sunk 2 feet, total 32 feet. Lode is about 2 feet wide and carries a little galena. Ore raised 18 tons 12 cwts. seconds, assaying 8 per cent. lead and 9 ounces 16 dwts. silver. Concentrator has been run 66 hours and has treated 184 tons seconds for 30 tons 7 cwts. concentrates and prills, containing about 22 tons 1 cwt. lead and 2471 ounces silver.

MILLS' DAY DAWN UNITED.—Mine manager's report for fortnight ending January 15: No. 8 level west extended 8 feet by contract, showing 18 inches of reef in end of level of good quality. —Underlie Shaft: A small shaft has been sunk on the hanging wall 16 feet by contract for the purpose of hauling the stuff from the main shaft on to No. 8 plat by underground engine. No. 7 level east on the hanging wall driven 17 feet by contract. The reef in the stopes varies from 18 inches to 5 feet of medium quality. The stopes over the eastern level reef varies from 1 to 3 feet of medium quality. The winze under this level has been sunk 25 feet and should hole to No. 8 about Wednesday. No. 7 level west extended 7 feet, carrying 5 feet of reef. In the stopes reef ranges from 5 to 10 feet of very fair quality.—No. 6 Level West: Have commenced driving again on the footwall, which carries 20 inches of reef, quality good. The stopes carry a reef varying from 1 to 5 feet of fair quality. We are driving east on this reef, and started a cross cut in No. 3 Pass, which will give a better outlet for the quartz and improved ventilation.—No. 6 level east: In the stopes over this level the reef ranges from 2 to 6 feet of fair quality.—No. 5 level west stopes: Reef varies from 2 feet to 5 feet of fair quality. The monkey shaft from this level is deepened 6 feet by contract, and holed the footwall reef; total depth, 65 feet. The reef in the eastern level varies from 2 to 5 feet of fair quality. The winze under this level has been sunk 27 feet.—No. 4 level west: Have resumed driving; reef is 2 feet 6 inches in end. In the stopes the reef varies from 2 feet to 8 feet thick, medium quality. The winze has been sunk 16 feet by contract. Reef in stopes on eastern side varies from 2 feet to 5 feet of fair quality. Stone raised, 1950 tons. Baled water, 22½ hours.

MOSMAN.—Mine manager's report for fortnight ending 18th January: North Australian Mine; Byerley level north winze deepened a further 9 feet, total depth 65 feet. The reef, which is only 4 inches thick, is of very good quality, and appears to be making larger.—Byerley Level South Crosscut: A crosscut has been started near the end of this level, 4 feet having been advanced to try to intersect a reef worked on the surface years ago.—Lucknow Level—Rise: A rise is being put up to meet the winze being sunk in the Byerley level. Reef 4 in. to 6 in. thick; fairly good quality.—Stopes: The various stopes continue to turn out stone as usual. Stone raised during the fortnight 55 tons, total on surface 80 tons.—Wyndham Mine: Shaft has been sunk 2 feet during the fortnight, total depth from No. 12 plat, 130 feet. The formation is encouraging for stone making.—No. 13 Level: Levels north and south of the shaft have been started, and each has been driven 6 feet. To the south there is 1 foot of stone in the face of very good quality; to the north no reef at present. No. 8 north level has been driven 5 feet; total from the shaft, 282 feet. The formation carries several leaders of a promising description, and likely to form a reef at any time. Stopes: Over No. 12 level north of shaft the reef is 6 inches to 2 feet thick, worth say an ounce per ton. Over No. 11 level the reef is about 10 inches thick, worth say 12 dwts. per ton. Over No. 9 south level the reef is 4 inches to 2 feet 6 inches thick; for 20 feet it is 1 foot thick, worth fully 3 ounces per ton, the remainder of the stone being worth about 1½ ounce per ton. No. 12 level winze has been sunk 25 feet; total depth, 47 feet. The reef is fully 2 feet thick, worth 1½ ounce per ton.

MYSORE REEFS.—Fortnightly report of Captain M. Scantlebury, mine agent, dated February 21: Underlie Shaft: This shaft has been sunk 11 feet 9 inches, now 200 feet 3 inches from surface. The lode is 5 feet wide showing two good walls. During the past week there has been more black rock intermixed with the lode, the consequence is that the assays are much lower. Three samples have been assayed with the following result;—No. 1 smalls, 5 dwts. 21 grains; No. 2 quartz against hanging wall, 1 ounce 6 dwts. 3 grains; No. 3 quartz on footwall, 5 dwts. 5 grains. This is not so good a result by far as the last were, but there is nothing to fear, the lode is all right. Mr. James, the underground foreman, has just come in with some of the best stones of gold that I have ever seen, which came from last night's blast. I saw yesterday that the lode in the south end of the shaft was looking better—more quartz—and last night's blast has opened it out splendidly again. At a comparatively speaking shallow depth and with no water in the lode we must expect these changes, but it is my firm belief that we have a good thing, and that a splendid mine is being opened up.—Vertical Shaft: This shaft has been sunk 16 feet, now 200 feet 6 inches from surface. There is no water and I have decided to crosscut east to intersect the lode. The distance to drive will be from 20 to 25 feet, assuming the lode to be dipping at the same angle as what it is in the underlie shaft. The bottom of this shaft is from 60 to 70 feet below the present bottom of the underlie shaft. I am, therefore, under the impression that the lode when seen will be as good, if not better, than what it is in the underlie shaft. Should this be the case, I need not say that a good piece of stoping ground will be speedily laid open.—Trial Shaft: On the western run of old workings has been sunk 3 feet, now 38 feet from surface. We have a deal of water in this shaft, and are obliged to store it by night to cart it in the day for feed for the boilers, otherwise better progress would be made.—Surface: I set a contract yesterday to take out the necessary ground for stamps engine, boiler, &c., and we have commenced to take down the stamps engine, which I trust will meet with your approval.

MYSORE GOLD.—R. Hancock, February 21: Mining operations for the fortnight ending February 19.—Rowse's shaft: This shaft has been sunk 6 feet, making a total depth of 119 feet 6 inches below the 1360 feet level.—1360 feet level north south of crosscut: This end has been driven 2 feet, making a total distance driven of 96 feet 6 inches, the lode is 1 foot 3 inches wide, assaying 8 dwts. 11 grains. The rise in the back of this level has been put up 12 feet, making a total height of 37 feet, the lode is 3 feet wide, assaying 7 dwts. 19 grains.—1260 feet level north: This end has been driven 10 feet 6 inches, making a total distance driven of 677 feet. The lode is 1 foot wide, assaying 7 dwts. 19 grains. These men have also been engaged part of the time blasting down corners of the level. The winze in the bottom of this level has been sunk 10 feet, making a total depth of 86 feet. The lode is 4 feet wide, assaying 1 ounce 21 grains. There are 3 stopes in this level, the average width of the lode being 5 feet 8 inches giving an average assay of 18 dwts. 2 grains.—1260 feet level south, crosscut west: This has been driven 6 inches, making a total distance driven of 9 feet. The rise in the back of this level has been put up 12 feet, making a total height of 262 feet. The lode is 3 feet wide, assaying 2 ounces 3 dwts. 6 grains. There are 2 stopes in this level the average width of the lode being 3 feet 3 inches, giving an average assay of 1 ounce 17 dwts. 1 grain. Driving south on the quartz intersected at the foot of rise the 1160 feet level north has been driven 12 feet 6 inches, making a total distance driven of 25 feet 6 inches. The lode is 2 feet wide, assaying 4 dwts. 13 grains. There are three stopes in this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 1 ounce 3 dwts. 14 grains. The 1160 level south end has been driven 13 feet 6 inches, making a total distance driven of 103 feet 6 inches. We have a pare of men engaged cutting a plat at this level. There are three stopes in the 1060 feet level north, the average width of the lode being 1 foot 3 inches, giving an average assay of 1 ounce 2 dwts. We have also two pares of men engaged stripping down side in the bottom of this level, in which the lode averages 1 foot wide, assaying 6 dwts. 12 grains. We have a pare of men engaged stripping down side in the back of the 990 feet level north, in which the lode is 1 foot wide, assaying 19 dwts. 14 grains. There are three stopes in the 890 feet level north, the average width of the lode being 2 feet, giving an average assay of 12 dwts. 8 grains. We have also a pare of men engaged stripping down side in the back of this level, in which the lode is 1 foot wide, assaying 1 ounce 6 dwts. 3 grains. The lode in the stope in the back of the 780 feet level north is 2 feet 6 inches wide, assaying 7 dwts. 19 grains. The 620 feet level north of crosscut has been driven 9 feet, making a total distance driven of 212 feet 6 inches. The lode having become pinched we have suspended the driving of this end, and put the machine to sink a winze in the bottom of this level 150 feet north of cross cut, which has been sunk to date 8 feet. The lode is 3 feet 6 inches wide, assaying 6 dwts. 12 grains. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 7 dwts. 19 grains. In the 620 feet level south of cross cut the end has been driven 2 feet, making a total distance driven of 60 feet 9 inches. The lode has pinched out. The rise in the back of this level has been put up 12 feet, making a total height of 76 feet. The lode is 2 feet 6 inches wide, assaying 6 dwts. 12 grains. In the 620 feet level south the lode in the stope in the back is 1 foot 6 inches wide, assaying 15 dwts. 15 grains. The 466 feet level north, No. 1 cross cut east, has been driven 2 feet, making a total distance driven of 3 feet since the driving of this end was resumed. In the 400 feet level north of cross cut the rise in the back has been put up 13 feet 6 inches, making a total height of 58 feet 6 inches. The lode is 4 feet 6 inches wide assaying 3 dwts. 22 grains.—Taylor's shaft, 400 feet level north: There are two stopes in this level, the average width of the lode being 3 feet 6 inches, giving an average assay of 9 dwts. 18 grains.—Gilbert's shaft, 650 feet level north: This end has been driven 19 feet, making a total distance driven of 200 feet 6 inches. In the 520 feet level north the lode in the stope in the back is 3 feet wide, assaying 14 dwts. 8 grains. We have put a machine to rise in the back of the stope 60 feet south of the boundary, risen to date 20 feet. The lode is 2 feet 6 inches wide, assaying 1 ounce 3 dwts. 4 grains. The lode in the stope in the back of the 520 feet level south is 1 foot 3 inches wide, assaying 15 dwts. 15 grains. There are three stopes in the 360 feet level north, the average width of the lode being 1 foot 10 inches, giving an average assay of 1 ounce 6 dwts. 15 grains. The rise in the back of the 290 feet level north, 108 feet north of the shaft, has been put up 13 feet. The lode is 2 feet wide, assaying 3 dwts. 22 grains. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 13 dwts. 1 grain. There are two stopes in the 290 feet level south, the average width of the lode being 2 feet 6 inches, giving an average assay of 9 dwts. 2 grains. Tennant's shaft has been sunk 10 feet 9 inches, making a total depth of 34 feet 9 inches below the 520 feet level. The lode is 2 feet wide, assaying 7 dwts. 19 grains. The 520 feet level north has been driven 24 feet, making a total distance driven of 265 feet. The lode having become disordered, we have suspended the driving for a time. The lode in the stope in the back of this level is 6 feet 6 inches wide, carrying about 4 feet of quartz, assaying 4 dwts. 13 grains. We have commenced to rise in the back of this level 124 feet north of the shaft, with the machine from the stope in the back of the 290 feet level south. The rise has been put up 5 feet. The lode is 7 feet 6 inches wide, assaying 17 dwts. We have commenced to sink a winze in the bottom of the 360 feet level north, south of crosscut, 124 feet north of the shaft, which has been sunk 2 feet. The lode is 2 feet wide, assaying 1 ounce 6 dwts. 3 grains. 290 feet level south, south of crosscut, has been driven 3 feet 6 inches, making a total distance driven of 51 feet; the lode is 8 inches wide of a mixed character. The lode in the stope in the back of the 290 feet level south, north of cross cut, is 1 foot wide, assaying 7 dwts. 12 grains. The cross cut east in Schaw's shaft, 450 feet level north, has been driven 2 feet 6 inches, making a total distance driven of 7 feet 6 inches. The No. 3 rise in the back of this level has been put up 17 feet, making a total height of 48 feet 6 inches; the lode is 6 inches wide, assaying 10 dwts. 10 grains. The winze in the bottom of this level has been sunk 2 feet, making a total depth of 57 feet, the lode is 1 foot wide, assaying 18 dwts. 6 grains. The lode in the stope in the back of this level is 1 foot 3 inches wide, assaying 1 ounce 0 dwt. 21 grains. 450 feet level north, south of cross cut, has been driven 6 feet 6 inches, making a total distance driven of 309 feet 6 inches; the lode is 6 inches wide, assaying 13 dwts. 1 grain. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 9 dwts. 2 grains. The winze in the bottom of 320 feet level north has been sunk 2 feet 6 inches

making a total depth of 135 feet 3 inches; the lode is 1 foot wide, assaying 7 dwts. 19 grains. The rise in the back of the 320 feet level, north of crosscut, has been put up 7 feet 6 inches, making a total height of 17 feet 6 inches; the lode is 9 inches wide, assaying 6 dwts. 12 grains. The lode in the stope in the back of this level is 6 inches wide, assaying 1 ounce 0 dwt. 21 grains. The 320 feet level south of crosscut has been driven 2 feet 6 inches, making a total distance driven of 147 feet. There is nothing here to report. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 14 dwts. 8 grains. The 220 feet level north end has been driven 5 feet, making a total distance driven of 231 feet 6 inches.—McTaggart's shaft: The 320 feet level north end has been driven 15 feet, making a total distance driven of 122 feet. The lode is small and poor.—Glen shaft: The 250 feet level north end has been driven 10 feet, making a total distance driven of 1246 feet 6 inches. There are only a few small strings of quartz in the end. The crosscut east in this level has been driven 2 feet 4 inches, making a total distance driven of 225 feet 4 inches. Ribblesdale's shaft has been sunk 8 feet 6 inches, making a total depth of 201 feet 6 inches. The 1060 crosscut west has been driven 22 feet 9 inches, making a total distance driven of 335 feet 6 inches.—Williams's shaft: The crosscut east from the shaft at the 173 feet level has been driven 1 foot 6 inches, making a total distance driven of 16 feet 6 inches.—Eastern prospect shaft: Driving south from end of No. 2 crosscut. This has been driven 48 feet, making a total distance driven of 68 feet. The health of the camp is very good.

NEW QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, January 19:—No. 3 south level: Stoping has been continued over this level, with one rock drill; the reef is very thin, about 4 inches. The stope in your freehold is very patchy. Very little stone has been got from these stopes during the fortnight.—No. 4 level south: Stoping has been carried on over this level, the formation varying in size from 1 to 6 feet. The reef is also very irregular (with several blanks), varying from 6 inches to 1 foot.—No. 5 level south has been extended a further distance of 12 feet, making 143 feet from underlie shaft. The reef in the face of level is at present somewhat broken up into leaders. Stoping has been continued over the level, on a reef varying from 3 to 8 inches. The ground is very hard.—No. 5 level north has been extended a further distance of 6 feet, making 78 feet from underlie shaft. A little stone is making on the hanging wall about 4 inches thick. Progress has been retarded on account of having to go back the level a distance of 20 feet, so as to bring the level from the footwall for the truck road; this work has been done and the truck road laid up to the face. Stoping has also been carried on over this level, the reef varying from 3 to 6 inches.—No. 4 formation: The air pipes are being placed in position. Stoping has been carried on over the level. On the northern side of crosscut the stopes have been carried back to about 36 feet from end of crosscut. The reef in the stopes varies from 6 inches to 1 foot. A drive has been opened out in the straight shaft at the point where the reef was struck in sinking; this drive will be sunk to intersect the stopes now worked on. So far this work is progressing satisfactorily. Quantity of quartz raised from the different levels during the fortnight. No. 3 level south 20 trucks, No. 4 level south 176 trucks, No. 5 level south 147 trucks, No. 4 level north 30 trucks, No. 4 formation 76 trucks; total, 449 trucks; approximate weight, 326 tons.—(Signed) W. Henderson.

NINE REEFS.—Fortnightly report of Captain John Woolcock, mine agent, dated February 21: Vyvyan's shaft: Since my last report we have brought our skiproad from the 300 to the 380 feet level, put in timbers, and fixed air winch to the latter level for drawing the stuff, &c., from shaft, and everything is now in good working order for sinking. The shaft has been further sunk 6 feet 9 inches; total depth below the 380 feet level, 34 feet 3 inches. There is very little change to report in the character of the ground or value of the lode since my last, but the lode matter appears to be improving as depth is attained. It is carrying more pyrites and patches of quartz, but at present is not of sufficient value to report. I trust the sinking of this lift will reveal a very much better lode and greatly improved prospects. The sinking will be carried on with all possible speed. The 380 feet level south has been advanced 5 feet 5 inches; total distance from shaft 54 feet 2 inches. The ground here continues to be hard and dry, and the lode matter is in a disordered state and of no value, which I hope will improve as we drive south. The winze sinking in the bottom of the 300 feet level south, 100 feet from shaft, has been further deepened 7 feet 10 inches; total depth below the level, 26 feet 10 inches. The lode formation is from 20 inches to 2 feet wide, but in the last 2 feet sinking the quartz leader has been very much disordered and split into small branches, which I hope will soon get more defined. A sample broken from the quartz yesterday gave by assay 2 dwts. 8 grains of gold per ton. The 220 feet level south has been driven 10 feet 7 inches; total distance from shaft 419 feet. I was hopeful in my last report that this end was entering another shoot of quartz, but I regret to say it is again disordered and unproductive. Seeing that we have driven a long distance on this disordered part, I purpose driving a short crosscut west to see if there is a better part standing in that direction. The crosscut to be driven from 18 to 20 feet, and if there is nothing better found I should like to drive a crosscut east and intersect the east part, and ascertain if it has improved from where seen about 280 feet to the north of this point.—Bennett's shaft: The crosscut west at the 145 feet level north of this shaft has been advanced 12 feet 2 inches, total distance from level 142 feet. We intersected a branch last week about 5 inches wide of a nice looking quartz from which we had several pan washings, but they were not of sufficient value to report. The end is not letting out as much water, but the ground is still stratified, and of a congenial nature, and the driving must be continued.—South shaft: This shaft has been further deepened 10 feet 1 inch, total depth from surface, 88 feet. The ground is getting a little harder, and letting out about the same quantity of water as when last reported, which I am thinking will soon drain, seeing there has been no rain for some time past, and the dry season before us.—Surface: All our machinery for the working of this shaft is in order, and waiting now for the retubing of the boiler. I expected the new tubes long ere this, and wired yesterday to know the cause of the delay. We are now removing the boiler from Vyvyan's to South shaft, and shall fix it and retube it in its place, which will be done as quickly as possible. All our machinery and pitwork are in good order and working well.—Health: I am pleased to say the health of the camp is very good, but the weather is getting hot.

NUNDYDROOG.—F. W. Grey, February 21: Report of the work done for the first fortnight in February: The sinking of Taylor's shaft below the 1000 feet level has been resumed by hand labour. 1000 feet north driven 29 feet 6 inches, total length 239 feet. The quartz is still small, being about 4 inches in width, assaying 5 dwts. 12 grains per ton; the ground is harder. 1000 feet south driven 24 feet, total length 131 feet. The lode is nearly 1 foot in width, and assays 10 dwts. 18 grains per ton. 840 north winze in bottom sunk 17 feet 6 inches, total depth 106 feet. The quartz is small, 3 inches wide, assaying 5 dwts. per ton. 840 north stope in back, ground stoped 8 fathoms. The lode is rather pinched here, and is now 2 feet wide, assaying 1 ounce 0 dwt. 12 grains per ton. 820 north stope in bottom, ground stoped 7 fathoms in a lode 4 feet wide, assaying 1 ounce 2 dwts. 18 grains per ton. 680 north driven 12 feet 6 inches, total length 45 feet 6 inches. We have now put two rock drills to work here. 520 north No. 2 winze drive south was driven 11 feet 6 inches when we holed the 600 rise. The quartz is 1 foot 6 inches wide, assaying 18 dwts. 12 grains per ton.—Main Shaft: We are now cutting cistern and tip plats below the 760 level, Kennedy's shaft sunk 8 feet, total depth 505 feet. There is no change here; still a great deal of water. 440 south driven 17 feet, total length 179 feet. The lode is 4 inches wide, assaying 4 dwts. 12 grains per ton. 440 north stope in back, ground stoped 18 fathoms. The lode is rather narrower, 1 foot in width, but the quartz is of fair quality, assaying 1 ounce 9 dwts. 6 grains per ton.—370 north stope in back: Ground stoped 5 fathoms; the lode is 1 foot 6 inches wide, assaying 1 ounce 10 dwts. per ton.—370 north stope in bottom: Ground stoped 7½ fathoms; the lode is a very fine one, 6 feet wide, assaying 1 ounce 19 dwts. per ton. At the north shaft we have just holed to the rise and stope in the back of the 600 south. We shall now complete the skiproad in this shaft as quickly as possible. The stopes, &c., working by hand labour are as follows:—920 north drive, lode 6 inches wide, assaying 7 dwts. 12 grains. 920 south drive, lode 8 inches wide, assaying 6 dwts. 12 grains. 760 south, No. 1 back stope, lode 1 foot 6 inches wide, assaying 1 ounce. 680 north winze, lode 8 inches wide, assaying 13 dwts. 680 north No. 1 back stope, lode 2 feet wide, assaying 14 dwts. 680 north No. 2 back stope, lode 1 foot 3 inches wide, assaying 12 dwts. 680 north No. 1 bottom stope, lode 6 inches wide, assaying 12 dwts. 6 grains. 600 north No. 1 back stope, lode 1 foot wide, assaying 1 ounce 7 dwts. 600 north No. 1 bottom stope, lode 1 foot 6 inches wide, assaying 1 ounce 0 dwt. 12 grains. 600 north No. 2 bottom stope, lode 2 feet wide, assaying 10 dwts. 18 grains. 600 north No. 3 bottom stope, lode 1 foot 6 inches wide, assaying 1 ounce 10 dwts. 6 grains. 600 north No. 4 bottom stope, lode 1 foot wide, assaying 9 dwts. 18 grains. 600 north No. 5 bottom stope, lode 1 foot wide, assaying 10 dwts. 600 north No. 6 bottom stope, lode 1 foot wide, assaying 15 dwts. 520 north No. 1 bottom stope, lode 1 foot 6 inches wide, assaying 9 dwts. 18 grains. 520 north No. 2 bottom stope, lode 2 feet wide, assaying 8 dwts. 18 grains. 520 north No. 3 bottom stope, lode 1 foot 3 inches wide, assaying 1 ounce 5 dwts. 520 north No. 4 bottom stope, lode 1 foot wide, assaying 10 dwts. 6 grains. 520 north No. 5 bottom stope, lode 2 feet wide, assaying 2 ounces. 520 north No. 1 back stope, lode 1 foot wide, assaying 11 dwts. 520 north No. 2 back stope, lode 1 foot wide, assaying 6 dwts. 12 grains. 450 north No. 3 bottom stope, lode 1 foot 6 inches wide, assaying 15 dwts. 450 north No. 4 bottom stope, lode 6 inches wide, assaying 13 dwts. 370 north No. 1 bottom stope, lode 9 inches wide, assaying 8 dwts. 18 grains.—Kennedy's: 95 north No. 1 bottom stope, lode 1 foot 6 inches wide, assaying 10 dwts. 18 grains. 95 north No. 2 bottom stope, lode 1 foot 3 inches wide, assaying 12 dwts. 160 south No. 1 back stope, lode 6 inches wide, assaying 9 dwts. 18 grains. 160 south intermediate, lode 4 inches wide, assaying 4 dwts. 6 grains. 300 north No. 1 rise and stope, lode 2 feet 6 inches wide, assaying 18 dwts. 12 grains. 300 south No. 1 rise and stope, lode 2 feet wide, assaying 7 dwts. 12 grains. 300 south No. 2 back stope, lode 1 foot 3 inches wide, assaying 13 dwts. 300 south No. 3 rise and stope, *nil*. 370 south rise and stope, lode 3 inches wide, assaying 7 dwts. 370 south drive, lode 6 inches wide, assaying 6 dwts. 12 grains. 370 north rise and stope, lode 2 feet wide, assaying 13 dwts. 440 north rise and stope, lode 1 foot wide, assaying 1 ounce 5 dwts.—Mills: The mills and tailings machinery are running well.—Health: The general health of the camp is good.—Old Mill Samples: Rough quartz through stonebreaker 18 dwts., smalls 15 dwts., tailings 4 dwts. 12 grains.—New Mill Samples: Rough quartz through stonebreaker 15 dwts., smalls 13 dwts., tailings 4 dwts. 6 grains.

QUEEN CROSS REEF.—Copy of manager's report for fortnight ending January 23: Since my last report stoping has been continued over No. 5 level on from 1 foot to 11 inches of stone. We started at the Fair Rosamond mill to crush last week. We have hauled 52 tons for the fortnight, making 216 tons in the paddock, and at the mill. Davies and party, contractors for sinking the vertical shaft, have sunk 11 feet for the fortnight, making total distance from surface 708 feet 6 inches. The ground is about the same as at the time of last report. We are below timber 33 feet 6 inches. Everything in connection with the mine is in good working order.

SUTHERLAND REEF.—Mine manager, February 15, writes:—Some of the timber ordered for Norman's shaft has arrived, and more is on the road. The work of sinking the shaft is proceeding satisfactorily, and is now cut down full size to 87 feet below the surface.

SOUTH-EAST MYSORE.—Fortnightly report of Captain M. Scantlebury, mine agent, dated February 21: Beresford's shaft has been sunk by hand labour 8 feet 6 inches, which now makes a depth of 60 feet 9 inches on the underlie of the lode, and 158 feet 6 inches from surface. The lode is of good appearance, being 4 feet 9 inches wide, showing two good walls and composed of dark blue quartz, but for the last 5 feet sunk the quartz is of low grade; but this I think is only temporary, and nothing more than we should expect to see in following a lode. Four assays have been made with the following result: No. 1 5 dwts. 12 grains, No. 2 3 dwts. 6 grains, No. 3 4 dwts. 13 grains, No. 4 2 dwts. 14 grains. Pigott's shaft has been sunk 8 feet 6 inches, now 137 feet 6 inches from surface. The rock is a little easier, and you will observe that better progress has been made during the past fortnight.—Surface: The bed and foundation for air compressor is commenced, and the air compressor engine removed from South-East Mysore to Beresford's shaft.

TASMANIA CROWN SILVER.—Manager's report, dated 2nd February: Main shaft No. 1 level east has been opened out from shaft, and driven 10 feet to the eastward. The country is soft and favourable for driving, and good progress is being made. The rock in No. 2 level west continues very hard, and 17 feet 6 inches is all the contractors were able to drive, making a total length of 237 feet. The water in Prospect shaft became so heavy that we were unable to beat it by driving the 9 inch lift at 13 strokes per minute. Sinking was accordingly discontinued to enable us to lengthen the stroke of the pump. We hope to have the arrangements completed for this to-morrow, and we will resume sinking on Monday. The shaft is now 48 feet deep.—Prospect Shaft No. 2: When the men were beaten out of Prospect shaft I thought we would take advantage of the fine weather to do some surface prospecting to the west of main shaft. We accordingly set them a contract to sink 30 feet upon a formation supposed to be the lode running through our old workings. An old shaft was cleared out, and sinking began from a depth of 18 feet. The shaft is now down 33 feet in a soft formation, carrying a considerable quantity of pyrites, with streaks of oxidised matter and occasional small bunches of galena. A little water is now making in the bottom, but not so as to interfere seriously with sinking as yet.—Geo. R. Tilley, manager.

VICTORIA AND QUEEN GOLD.—Copy of manager's report for fortnight ending January 23: Your underlie has been sunk a further depth of 11 feet, making total 45 feet from the plat. The reef has pinched a little, and is now from 5 to 7 inches, but it is better quality stone than at the time of last report. We have finished putting in the necessary timber to secure the bottom of the straight, and laid the skid road to the bottom of the underlie. Canty and party have sunk your winze a further depth of 18 feet, making total depth from level 32 feet. The reef is looking about the same as last reported on. The stopes in the back of the drive are about the same, the reef varying from 6 inches to 1 foot of good quality stone. We have hauled during the fortnight 50 tons, and crushed 89 tons 14 cwts., which gave a yield of 276 ounces of smelted gold. Total at grass at present is 20 tons. We had a breakdown with the engine yesterday, which delayed us for a few hours. Everything at present is good working order.

NEW QUEEN.—The directors submit their report on the operations at the mine and mill for the half year ending 31st December: Yield of gold: The output of quartz for the half-year was as follows:—No. 1 formation 3120 tons, 6886 ounces 15 dwts., average per ton 2 ounces 4 dwts. 2 grains; No. 4 formation 146 tons, 197 ounces 15 dwts., average per ton 1 ounce 7 dwts. 2 grains; total 3266 tons, 7084 ounces 10 dwts. Although the tonnage is 379 tons more than in the previous half-year, yet it is not so much as we anticipated at the beginning of the half-year; but it is gratifying to find that the average yield per ton is nearly twice as much as in the former period, and is the highest yet obtained from your No. 2 shaft.—No. 2 shaft, No. 1 formation: The following is a summary of the work done on this formation during the half-year:—Nos. 2a and 3a levels: All the stone in the stopes above these levels was taken out right up to the Kelly's Queen Block boundary, and work there was stopped in the beginning of October. No. 2A level south has been driven a further distance of 36 feet, and a drill hole put through into the No. 11 level of the Victory Mine, thus showing that both companies have been working on the same reef. All the ground has been worked out to the boundary at this point, except a small corner which is blank.—No. 2 North Level: As mentioned in our last report, a monkey shaft was started in this level, about 50 feet from the Brilliant Central boundary, with a view of intersecting the shoot of stone worked by that company near the boundary. This monkey shaft was sunk vertically to a depth of 45 feet, in very hard country, and as there was no sign of a formation this work was stopped, as it was evident the shoot of stone did not come up so far as this shaft. Owing to the large amount of "dead" work carried on at various places in your mine at this time, nothing more was done at that point, but early in the coming half year we propose to sink a winze on the formation, near the boundary, to further search for the continuation of this stone. No. 3 level south has been extended 56 feet, making the total distance from the underlie shaft 509 feet. It is now in the freehold land leased to the company. The reef has been small, averaging about 6 inches thick of good quality. Stoping has been carried on above this level, both in your lease and the freehold, but the quantity of stone obtained has been much less than we expected, owing to the small size and irregularity of the reef. A winze has been sunk from this level, in the freehold, near the Band of Hope boundary, but there has been very little stone all the way down. In reference to the encroachment in the freehold by the Band of Hope Company, this amounted to 65 tons. We have made arrangements with that company to take out stone to the same value from their freehold above our No. 2 level. No. 4 south level has been extended 167 feet, making the total distance 305 feet. The lode or formation has varied in size from 1 to 9 feet, the stone averaging about 12 inches thick of very good quality. A considerable quantity of stone has been taken out of the stopes above this level, about half of the stone raised during the half-year having been obtained from this portion of your mine.—No. 4 north level: Owing to the course of the formation in this level turning sharply into the footwall (similar to the No. 3 level) and carrying no stone, a crosscut was put into the hanging wall (rising at an angle of about 40 degrees). The hanging wall formation was intersected after driving 27 feet. This formation carried a little stone, and a level was driven in a northerly direction along its course for a distance of 36 feet, then, as the stone was very small, work was discontinued. Underlie Shaft: The underlie shaft has been sunk a further distance of 80 feet, being 102 feet below the No. 4 levels, and 388 feet from vertical shaft. Stone of good quality from 3 to 11 inches thick was met in sinking. We are now preparing to sink again for another "lift." No. 5 South Level: This level has been driven 121 feet, and stoping on a fair reef has been carried on above it, but the quantity of stone obtained has not been large, the block as yet not opening up so well as the block above the No. 4 level. No. 5 North Level: This level has been driven 60 feet. There is a little stone near the underlie, but in the face of the level the stone has been cut out by a slide, which carries the formation into the foot-wall in a similar direction as in the Nos. 3 and 4 levels. We are now prospecting in the hanging-wall side of the slide, with a view to picking up the continuation of the shoot of stone worked on the other side of the underlie. We may say that the the north side of your lease, from the No. 2 level to the bottom of the underlie and to the Brilliant Central boundary, is practically untouched, as we have not met there the shoot of stone worked above the No. 2 levels, nor the shoot of stone worked in the Brilliant Central Mine near the boundary. We think these shoots of stone will eventually be found in this block of ground.—No. 4 Formation: Work was resumed in this formation during the half year in the north level, which has been extended a further distance of 131 feet, making a total distance of 167 feet from the crosscut. The reef improved in quality during the last 60 feet driven, and averages about one foot thick. Two small crushings have been taken out, as follows:—63 tons for 60 ounces of gold, 83 tons for 137 ounces 15 dwts. of gold = 146 tons for 197 ounces 15 dwts. of gold. The first crushing was taken out of the level, and the second was from the leading stope started above the level. The further prospecting of this portion of your mine has confirmed our opinion that the reef when at first intersected was on a poor patch (some of which are generally met in every reef), and that further prospecting would probably open up stone of better quality. The improvement in the quality of the stone in this formation is the most important event that has happened in connection with your mine for some considerable time, as it is a new lode, distant vertically 300 feet from the lode worked in the No. 1 formation, and it will probably traverse the whole of your ground. Work will be carried on in this formation with all possible speed, but it will take some time before we can obtain any great quantity of stone, owing to the poor ventilation. Air-pipes have been put in temporarily, but it is intended to open out levels at a point in the vertical shaft where the reef was first intersected and sink winzes to connect with the present levels. This will give ample ventilation to the workings. It was intended to proceed with this work when the reef was first discovered, but as the crushing gave such a poor yield it was not done. The course of this reef is the same as that of the reef in No. 1 formation, but it dips at a greater angle, that is, about 30 degrees, whereas the other reef averages about 22 degrees. General remarks.—We regret that we found it impossible to increase the output sufficiently to keep 15 head of stamps going on stone from the No. 1 formation. This was owing to the small size of the reef, and the ground, on the whole, being so hard that no profitable results can be obtained by hand labour, save in exceptional cases. Nearly the whole of the work is done with rock-drills, seven of which are kept constantly employed, which, with the hauling engine in the No. 1 formation, keeps the two air-compressors going at their utmost capacity. During the current half-year every endeavour will be made to increase the output of stone consistent with the efficient working of your mine. The reef at the back of the shaft has been worked right up to the boundary. In the past the best stone was obtained from these stopes, but during this half-year very little stone was obtained from this portion of your mine, although the average yield has been the highest yet obtained, thus showing that the best stone is in the deep ground. The machinery and appliances have been kept in an efficient state of repair, and there has been no outlay on plant account, except for a boiler to replace the exhaust tanks, which were nearly worn out, and necessary repairs.—Crushing Mill: The mill has been kept continuously going, with the exception of a few stoppages for want of stone, also for overhauling the machinery and cleaning out the boilers. The total quantity of stone crushed has been 6804 tons. The machinery has been kept in a good state of repair. A water shaft has been sunk below the reservoir, and a pump placed thereon, which is worked from the mill by means of a wire rope. This has helped the water supply during the late very dry weather. Four Wheeler pans and settlers have been fixed in position. These had been taken down when the Berdans were erected. We have applied for and obtained two homestead leases, abutting on the road near the mill, which will give us more room for firewood.—Tributors: The tributors at the No. 1 shaft have crushed 176 tons of stone during the half year for a yield of 158 ounces 5 dwts. of gold, from which the company derived a profit of £33 4s.

GENERAL JOUBERT AND THE RUSH TO MASHONALAND.—General Joubert has, says Reuter, issued a manifesto warning the burghers of the Transvaal against leaving the Republic, which he describes as "the land blessed by God and by nature," and proceeding to Mashonaland. "It is not unnatural," says the General, "for the Cape and Natal colonists, the sons of British soil, to follow their Imperial leader Rhodes on his path to extend the British Empire over the whole of South Africa. Yes! even over the Transvaal and the Free State, as he himself declared, when speaking at Kimberley as Premier of Cape Colony, your fathers sacrificed everything to escape from British rule, and bled to throw off the British yoke! Will you, despising such sacrifices, go to the aid of your greatest enemy—who has undermined the Afrikander people, and committed treason against our beloved Republic—by helping to extend the Imperial power of England, and to stamp out the Transvaal. I assure you by all that is holy that this will be the end of Rhodes' work which you are unwittingly aiding. The northern country was the natural and only means of extension for the Transvaal, and was for years our hunting ground. Now, not only are *we* robbed of our hunting fields, and of our friendly neighbours, the Matabele, but our burghers are enticed to help encompass our country with British territory, thus making an independent existence impossible. All who do not desire to become traitors to the independence of the Republic will not listen to the voice of the charmer."

TIN DRESSING.

MODERN PLANT AT BOTALLACK.

FOR many years the question of concentrating the crude tin ores of Cornish mines by jigging, has been much talked of, eliciting both favourable and unfavourable opinions. Some few years ago, in connection with our mines, jigging was tried for a very short time, and without giving the new process much time or thought it was thrown on one side, the same as many other modern inventions have been in Cornwall, whose miners have a preference for their old friends—"Messrs. Pick, Shovel, and Wheelbarrow"—leaving the many opportunities of progress and economy for newer mining countries to embrace. As one result, we find—to-day and in many parts of the mining world outside Cornwall—very complete modern automatic concentrating appliances, producing one strong proof of the effectiveness of modern application, inasmuch as that leavings-men (tributers) find it more profitable to follow the dressing tin plants of Cornwall than to adopt modern tin dressing plants in new tin countries. This is not a mere matter of love for home, but a matter of profits, as here it pays, and in new countries it does not pay.

Still, there are improvements, one by one, creeping into the grand old county, and the days of old Cornish stamps are doomed, as now we hear the merry music of modern stamps played to the tune of 80 blows and more per minute. Stone-crackers are here, also rock-drills, besides improved explosives. And more will follow, if only the tin-market will flow again to its normal position, which most assuredly will take place.

During the last few weeks, separators, jiggers, and spits-caskens have, as part of a modern tin-dressing plant, been erected at Botallack Mine, under the direction of Mr. Williams, late of Australia, and the nature of the process may be described as follows:—

The jiggers are a pulsating automatic machine, self-receiving and discharging, which gave the erector every satisfaction in trial runs, from day to day, amounting in all to about 30 hours. In the usual way, as the stuff flows from the stamps, it is conveyed direct to a separator, and by the aid of one small hydraulic pipe of water, the full discharge of 16 heads of stamps is at once separated. Slimes from the coarser portions, automatically continued, will separate from the first coarse size to any degree of fineness.

From the first separation the jiggers are, under ordinary conditions, supplied with about 50 per cent. of the whole discharge of 16 heads of stamps. In each full set of jiggers there are two lines of sieves, consisting of three in each. The first sieve takes out the major portion of the pyrites and tin ore, mixed with sand containing more or less tin, not fully freed from the lode matrix, all of which is deposited in one class of box. The second boxes are much poorer, whilst the third are still poorer, discharging over the end of the last sieve from 80 to 85 per cent. of waste refuse containing only traces of tin and pyrites.

This, in full work, should be continued to large sand buddles of modern construction, which are, to a very great extent, self-discharging, and may be kept so doing from two to four and six and eight days, according to requirements. Thus anything which escapes the jiggers is finally caught in the head of these buddles.

Up to this point the pyrites and tin ores are collected with the assistance of very little manual labour, leaving a fairly rich residue, in a comparatively small compass, to be dressed up. The quality of the residue, collected by jiggers, depends greatly upon the quality of the stuff crushed. Slimes pass from the first separator to a spitscasken, from the bottom of which a convex buddle was fed, and the results were all that could be desired. Beyond this point no other appliances were erected.

From the first spitscasken the slimes should flow to a second, forming number two grade slimes, which should be treated by rotary tables properly designed; and, from the second, the overflow slimes should be deposited in the third spitscasken forming number three grade slimes, which should be treated by dead frames.

The slimes being, at this point, practically untinned a rich residue remains to be dressed up. In any well-conducted modern automatic plant the one main object should be, at first, to separate; that is to say, slimes from the coarser portions; and not allow them to again come together until both are practically untinned.

In jigging direct from the stamps all free tin ores, pyrites, and heavy sands containing more or less fine grains of tin, not sufficiently reduced, are so concentrated that they are cheaply and easily dressed up; and, although jiggers consume more water than the usual process in Cornwall, as a whole, yet following the work of dressing up the residue from jiggers, there is, in this particular part, time, labour, and water saved.

It has been argued by many in Cornwall that, in the dressing of tin ores, coarse and fine, mixed together, are necessary in order to save the fine tin. If this is in the least true, then the results obtained by the leavings—tributers working on the Red River do not in the smallest degree confirm this baseless argument. Separation and classification are comparatively modern departures, and those who have, practically, worked under the old and new systems hold but one opinion, and that is decidedly in favour of classification, which commends itself to all thinking tin dressers of this stanniferous county, amongst whom there are many able men, but, unfortunately, they are too often subordinates to non-practical mine managers.—*The Cornishman.*

THE WORKING OF INDIAN COAL.—The report of the deputy-superintendent of the Geological Survey of India, on the economic results of the Mergui coal exploration, is anything but encouraging. It seems that there is coal of two different ages in the Tenasserim Valley, one belonging to the Moulmein upper carboniferous group, and the other to the Tendau-Kamapying group, the latter belonging apparently to the tertiary age. The coal in the Moulmein Group, which is very widely distributed, and has for years past been believed to be not only excellent coal, but deposited in abundant quantities, is now found to be economically useless. It only occurs in thin deposits, 2 or 3 inches in depth, is mixed with large proportions of nodular white quartz, and often hardly deserves the name of coal at all, so largely does the shaley element predominate. In the Tendau-Kamapying group, however, which covers an area of about 30 square miles in the Tenasserim Valley, the coal appears to be confined to the right or western bank of the River Tenasserim, and the available quantity is estimated at about a million tons. This coal is reported to be far above the average of Indian coal for steaming purposes, but it could not be brought to the pit's mouth at a less cost than 5 rupees per ton, and transit to Mergui would cost an additional 2 rupees per ton. It is presumed that transit could be satisfactorily effected in shallow draught barges, towed by stern wheel launches from Therabwin or Banlau, for the alternative proposal of a railway 28 miles long to the port of Kyupkhya would be far too much on the price of the coal. It is true that there are extensive deposits of iron ore in the locality, and excellent limestone at Therabwin, but it seems exceedingly doubtful whether, even under the most favourable circumstances, the game would be worth the candle.—*(Communicated).*

TIN TICKETING.

A TICKETING for tin ores was held at Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

	Tons cwts.	Per ton.	Value.
Carn Brea No. 1	18 0	£38 10 0	£693 0 0
do No. 1a	17 0	35 12 6	656 12 6
do No. 1b	17 0	39 5 0	650 5 0
do No. 2	2 0	31 0 0	62 0 0
Wheal Grenville No. 1a	30 0	43 0 0	1290 0 0
Dolcoath No. 1	17 0	42 7 6	720 7 6
do No. 2	17 0	42 2 6	716 2 6
do No. 3	16 0	42 2 6	674 0 0
do No. 4	10 0	46 7 0	463 15 0
Tincroft	17 0	38 7 6	652 7 6
do	16 0	38 7 6	614 0 0
do	3 0	23 10 0	70 10 0
South Frances Utd. No. 1	15 0	41 2 6	616 17 0
do No. 1a	15 0	41 10 0	622 10 0
East Pool No. 1	17 10	37 17 6	662 16 3
do No. 2	1 10	14 12 6	21 18 9
Killifreth	19 0	41 5 0	783 15 0
Phœnix United	17 0	41 5 0	701 5 0
Wheal Basset	12 0	42 10 0	510 0 0
do No. 2b	3 0	27 7 6	76 2 0
West Kitty	12 0	43 0 0	516 0 0
Wheal Agar	11 10	38 0 0	437 0 0
South Condurrow	8 0	43 7 6	347 0 0
Wheal Kitty	6 0	43 7 6	260 5 0
Hexworthy	4 10	45 15 0	205 17 6
	322 0		£13,024 7 6

AVERAGE PRICE PER TON.

Jan. 2nd	£42 13 3	Feb. 13th	£40 18 10
Jan. 16th	41 6 4	Feb. 27th	39 3 8
Jan. 30th	41 10 0	March 13th	40 9 0

STAR LIFE ASSURANCE SOCIETY.—The annual meeting of the Star Life Assurance Society was held on Wednesday, in Cannon-street Hotel, Mr. William Mewburne presiding.—The Chairman, in moving the adoption of the report, expressed his pleasure at presiding at this their jubilee gathering. The report was, under all the circumstances, as good as any which had preceded it. They might have anticipated, through the existing depression in trade, a serious falling off in three years' returns, but it was a satisfaction that they had held their own. The result of the year's working had been the placing of £211,000 to their accumulated fund, and their total assets were now £3,527,285, while they had a surplus of close on £600,000. This would enable them to give an increased bonus of 31s. per annum for the five years on the sums assured to all new entrants, and £2 14s. per cent. to their older policy holders.—The report was adopted.

COMPANIES AND LEGAL ANNOUNCEMENTS.

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EDWIN HABBEN, London Secretary.

THE MYSORE GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the FOURTEENTH ORDINARY GENERAL MEETING of the Members of the above-named Company will be held at the Cannon Street Hotel, in the City of London, on TUESDAY, the 20th day of March, 1894, at Twelve o'clock noon.

To receive the Reports and Accounts.

To elect Directors and Auditors in place of those retiring; and for other General Business.

By order of the Board,
I. CROCKER, Secretary.

Registered Offices: 6 and 7, Queen Street Place, London, E.C., 10th March, 1894.

THE NUNDYDROOG COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the FIRST ORDINARY GENERAL MEETING of this Company will be held at the Cannon Street Hotel, in the City of London, on WEDNESDAY, the 21st day of March, 1894, at Twelve o'clock noon.

To receive the Reports and Accounts.

To elect Directors and Auditors; and for other General Business.

By order of the Board,
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* Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
*§Trojan	—	March 11	March 17	March 24
†§Mexican	—	—	—	March 31
‡Gaul (Twin Screw)	Mar. 25	—	March 31	April 7
†Moor	—	—	—	April 14

† Calling at Madeira. ‡ Via Lisbon and Tenerife. § To East Africa.
* Via Lisbon, Tenerife, and St. Helena.

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*Methven Castle (via Grand Canary)	March 30	March 31
Dunottar Castle (via Madeira)	April 6	April 7
Garth Castle (via Grand Canary)	April 13	April 14

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PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of March 15 (4 o'clock), as follows:—We have had rather a better market this week, better prices, and more business. To-day market is moderately steady. Following are quotations:—Blue Hills, 1s. to 3s.; Carn Brea, 12 to 12¼; Cook's Kitchen, ⅜ to ⅝; Dolcoath, 70½ to 71½; East Pool, 10⅜ to 11; Killifreth, £3 9s. to £3 11s.; South Condurrow, ⅜ to ⅝; South Crofty, 2 to 2¼; South Wheal Frances, 1s. to 3s.; Tincroft, 11 to 11½; West Frances, 1 to 1¼; West Kitty, 6½ to 7; Wheal Agar, 1½ to 2⅛; Wheal Basset, 3¼ to 3½; Wheal Grenville, 13¾ to 14¼; Wheal Kitty (St. Agnes), ½ to ⅝; Polberro, 12s. to 14s.

MR. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (March 15) as follows:—The mining market has been hardened considerably on the improvement of tin, and satisfactory result of Tuesday's sale of ores at an average rise of 25s. per ton, with buyers more prevalent. Dolcoath advanced £5; other shares have not yet proportionately responded to the reaction, from a want of confidence in its being permanent. Following are prices:—Blue Hills, 2s. 6d. to 3s.; Carn Brea, 12 to 12½; Dolcoath, 71½ to 72; Devon Consols, 1 to 1½; East Pool, 10⅜ to 11; Killifreth, 3¼ to 3⅜; Levant, 6 to 6¼; Phœnix United Mines, ⅜ to ½; Polberro, ⅜ to ⅝; South Crofty, 1½ to 1⅝; South Frances, ⅜ to ½; Tincroft, 11 to 11½; West Frances, 1 to 1¼; West Kitty, 6⅜ to 7; Wheal Agar, 1⅜ to 2; Wheal Basset, 3 to 3¼; Wheal Grenville, 14 to 14¼; Wheal Kitty, ⅜ to ½.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, March 15:—There has been more business this week, and the price of shares has responded to the upward move in tin. Dolcoaths touched 72½, but do not close as best. West Frances and South Crofty in request. Quotations herewith (four o'clock):—Carn Brea, 12 to 12¼; Cook's Kitchen, ⅜ to ⅝; Dolcoath, 71 to 72; East Pool, 10⅜ to 11¼; Killifreth, 3⅜ to 3½; Phœnix, ¼ to ½; Polberro, ⅜ to ⅝; South Condurrow, ¼ to ½; South Crofty, 2 to 2¼; South Frances, ⅜ to ⅝; Tincroft, 11 to 11½; West Frances, 1 to 1¼; West Kitty, 6½ to 7; Wheal Agar, 1½ to 2; Wheal Basset, 3 to 3½; Wheal Friendly, 2s. to 4s.; Wheal Grenville, 13¾ to 14¼; Wheal Kitty, ⅜ to ½. Tin, 67⅝.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, March 15, 1894 (noon):—Whilst nothing more than a very moderate amount of business is reported for the past week—the fortnightly settlement taking attention—still prices, where changed, are mainly better throughout the foremost departments. Home Railways are irregular, with variations only, ranging between ⅛ to ¼ on either side, excepting for Brighton A, which are 1⅜ down, and South-Eastern A 1. and Berwicks ⅜ better. Other departments of rails all show improvement, Canadians being from 3-16 in ordinary to 1¼ in first preference higher. Pacifics too are $1¼ up. The advances in Mexican Rails are ⅛ on ordinary and ¼ on first preference, the second preference remaining without alteration. Americans have worked upwards, and though not quite maintaining absolutely best prices quote better all round, without exception, amongst the stocks termed "active" here. Milwaukie's are again about the head of the list, with rise of $1½, but this time Louisvilles bear them company, with advance of same amount. Amongst the further leaders are Atchison Ordinary $1⅜ to $1½, Ohio First $1, Erics $¾, New York Central $⅞ to $1, Denver Preference $¾, and Norfolk Preference $⅝. Besides these there are a number of other advances of small amount, and as we have said, there are no declines to report to counteract or counterbalance the array of improvements. Consols have made another upward move, the improvement on the week being 7-16. Colonial Bonds, &c., are still on the down grade where any alteration is made, but the instances are few and not of large amount, being confined to ¼ each, and in the following—viz., Cape of Good Hope Consolidated, Queensland Inscribed, and Victoria Railway Loan Inscribed. In foreigners variations are few, and with the exception of distinct rise in Brazilian issues and decline of 1⅜ in Egyptian Unified, only vary ⅛ to ¼ on either side with slight majority on the upward side. Miscellaneous classes of shares have furnished (considering the occurrence of the settlement) a fairly moderate number of dealings. These dealings are pretty well distributed amongst the several sections of the market, without special prominence in any one class, as a class. Some of the sections show definite change as regards current prices, but on the whole there is not much balance of variation on the side of either, higher or lower.

BANKS, beyond some repeated dealings in Salfords, and to a less extent in Consolidated, have produced very few transactions. Prices, however, show a number of improved quotations of ¼ in each case, and there are no instances of decline to set against them.

INSURANCE.—Business straggling and small in the aggregate. Prices but triflingly altered, the foremost changes being in Royal, which are lower, but only to the extent of ⅜. Other changes about evenly divided, and only amounting to 1-16 up to ¼ on either side.

COAL, IRON, &c.—Hardly anything doing, and variations in quotations are within very narrow limits. Bolckows £12 paid and Ebbw Vales are fractionally higher, but beyond these the changes are adverse. Only Tredegar "A," which are 1½, Parkgates 1, and A. Knowles and Sons ¼, however, are worth naming.

MINES.—Better in all cases (and these are fairly numerous) where changed at all. The improvement is very fractional, however, the best being in Mysores (¼).

COTTON SPINNING, &C.—Nothing fresh to record. Business keeps very dull, and prices nominally without alteration worth naming.

TELEGRAPHS show a few declines of ¼ and one of ½, last named being in Anglo-American preferred only. There are no advances to record herein.

BREWERIES.—A lot of better prices are marked; these, however, are mostly of small amount, with Allsopps again better (½ to 1), though they have been more than that. The one exception to the rule is Chesters, the ordinary shares of which have further declined ¼ for the week.

MISCELLANEOUS.—Brunner and Monds have had some recovery from recent sharp decline, the fully paid responding to the better tone to the best extent. Salt Unions have been in demand now and then, and quote ¼ better. Suez Canal shares ¼ up. Ship Canal issues since Friday last, when they showed distinct strength (late in the day), have dwindled since. Up to writing the fall is about ¼ on each issue. Seddon Tyres are ¼ lower, and United Alkali Ordinary and Coat's have a similar fall.

LATER (4 p.m.).—Home rails dull, and without feature save for further fall of 1 on Brighton, A. The North British dividend announcement giving 1 per cent. on New Ordinary has not moved their price at all, nor has it affected Caledonians. Americans, whilst opening steady, did not maintain early prices; declines are not of much account however. Canadians have moved similarly to Americans. Nothing doing in Mexicans. Ship Canal shares have had a fresh fall during to-day, but are pretty steady at the decline, and, perhaps, a little better at the close than lowest of the day.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (March 15), writes:—During the past week the markets have been quiet, but prices are firm. Trade reports are encouraging, and the money market continues easy. The fortnightly settlement has been completed, and transactions now entered into are for account March 29, which will include the Easter holidays.

In shares of coal, iron, and steel companies prices are steady. Bolckow, Vaughan are at 12⅜; Ebbw Vale, 8 7-8ths; Niddrie and Benhar, 47s. 6d.; Rhymney, 30s.; Steel Company of Scotland, 72s.; Stewart and Clydesdale, 8⅛; and Wilson's and Clyde, 9½.

In shares of copper concerns there has not been much business doing, but the tendency of prices is upwards, in sympathy with the market for the metal. Tharsis have been sold from 98s. to 99s., and Tinto from 14⅛ to 15, but Arizona are lower at 7s. 3d.

In shares of gold and silver mines there has been less business doing. South African shares are generally higher owing to the returns for February showing an unexpected improvement over January. Montana are firmer at 5s. 4½d. In Indian mines the principal alteration is an improvement in Mysore on the issue of the annual report. African Gold Recovery are at 27s. 6d.; American Belle, 1s.; Barrett's Berlyn, 3s.; British South Africa Chartered, 29s. 6d.; Balaghat, 5s. 3d.; Broken Hill Proprietary, 45s. ex div.; Blue Spur, 1s.; Cassel, 18s. 6d.; Champion Reef, 72s. 6d.; Cinta, 1s. 6d; Consolidated Gold Fields of South Africa, 46s. 6d.; Gravel, 5s. 1½d.; Gold Fields of Mysore, 25s.; Idaho, 11d.; Joe's Luck, 2s. 3d.; Kimberley Roodepoort, 9s. 6d.; Lisbon Berlyn, 3s. 3d.; Mallina, 12s. 6d. to 17s. 6d.; Silver King (fully paid), 3s. 3d.; and Silati, 4s. to 5s.

In shares of miscellaneous companies a f amount of business has been done. In oil companies Broxburn a at 8¾, Pumpherston 7½, and Young's 26s. Lawes' Chemical are at 6½ Nobel's Explosives 13⅛, Paterson' Chemical 27s. 6d., and White ad 5s. 6d.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of March 18: The attention given to the home railway stocks has been largely absorbed by Caledonian Deferred and North British. The former has advanced 1-16. The announcement of the North British dividend gave firmness to that stock, which, however, shows a decline of 3-16 on the week. Brighton Deferred has receded 2½; South-Eastern Deferred has risen 1. Canadians show an improvement and Americans have had a fair rise. Bank of Scotland has advanced from 334 to 335½. British Linen from 370 to 375, Royal from 227 to 228, Union from 21½ to 21 9-16. In Insurance shares Liverpool, London, and Globe have risen from 44 to 44½, Standard Life from 58 to 58½, British and Foreign Marine from 21½ to 22½, Scottish Life from 31s. 6d. to 33s. North British and Mercantile from 35½ to 36¼. Mortgage of South Australia shares have advanced from 7s. to 8s., Scottish and New Zealand have declined from 3s. 6d. to 2s. 9d. Coal and Iron shares little changed. Stewart and Clydesdale have declined from 8 7-16 to 8½, and the Preference from 11 15-16 to 11 13-16, Wilson and Clyde from 9½ to 9 3-16. Broxburn Oil 1s. 3d. lower, at 8¾. Hermand 3d. lower at 1s. Swan Land and Cattle 1s. up, at 13s. Coats have declined from 16 9 16 to 16 7-16. Distillers have improved from 15 5-16 to 15 7-16. Highland Distilleries from 6 11-16 to 6¾. McEwan Preference from 12⅜ to 12 11-16.

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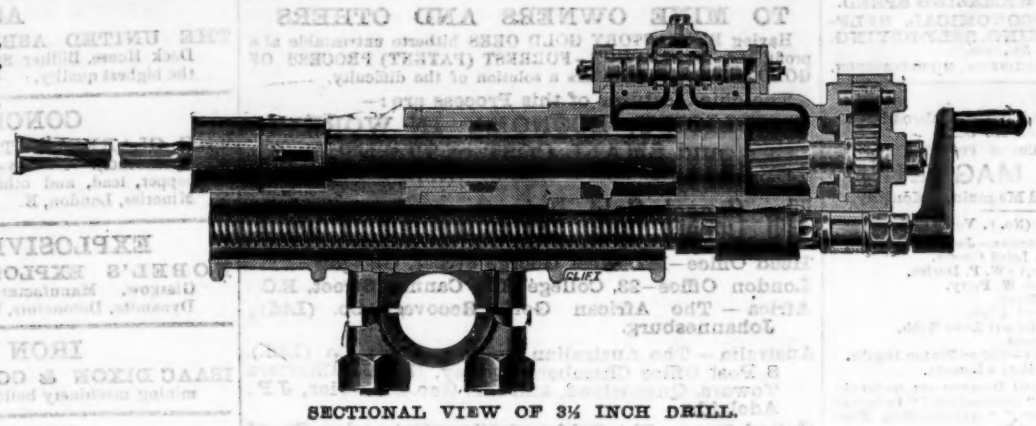

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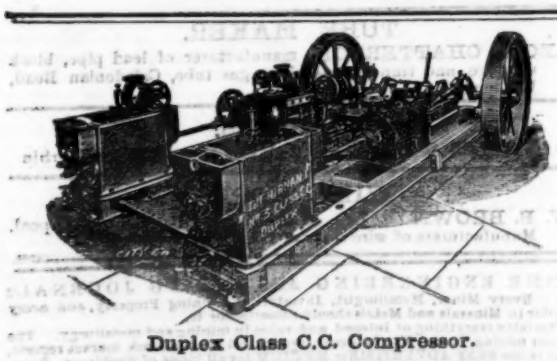

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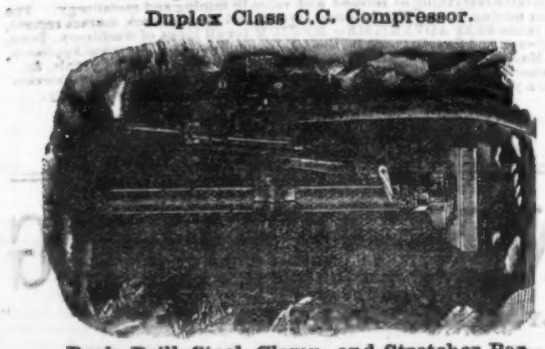

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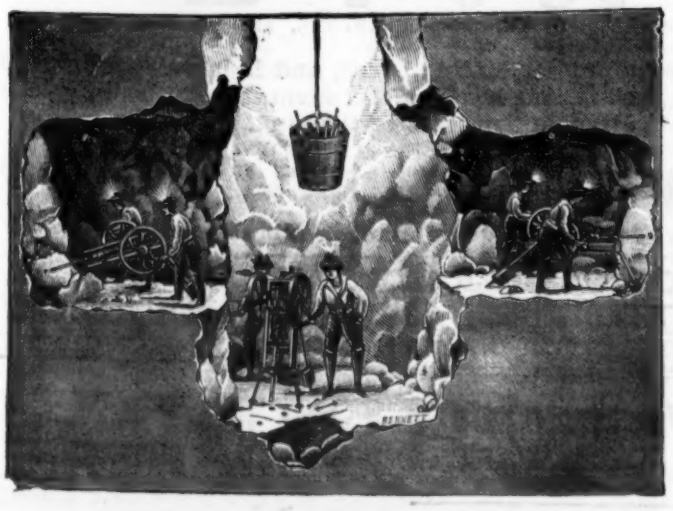

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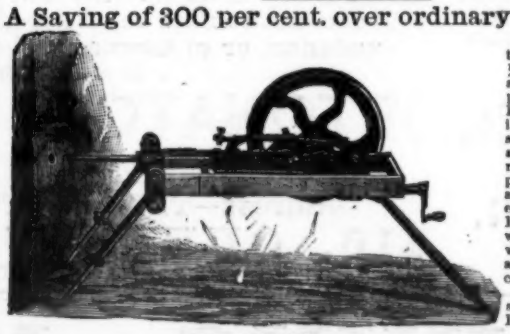

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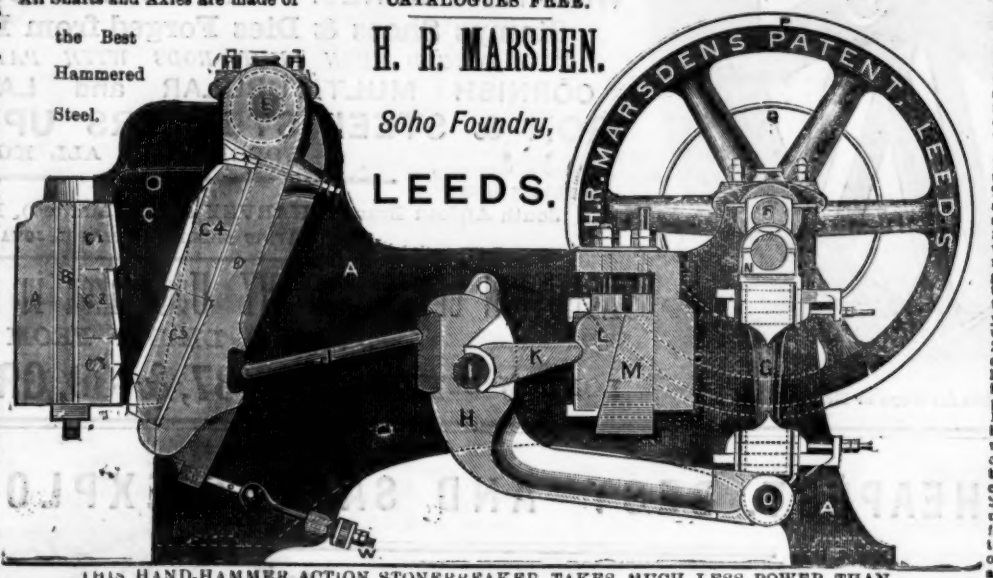

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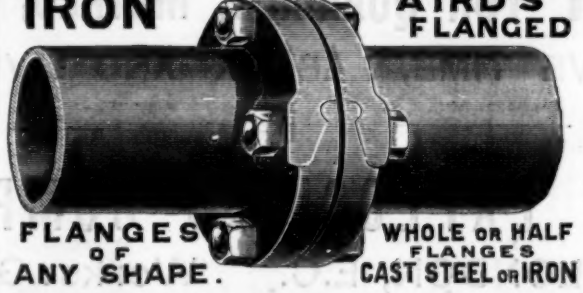

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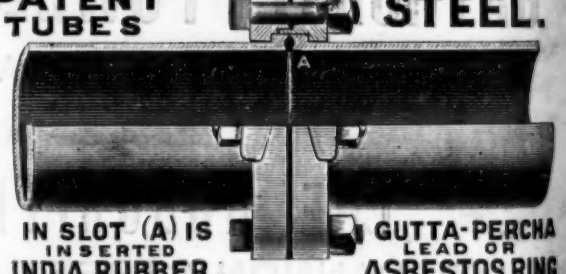

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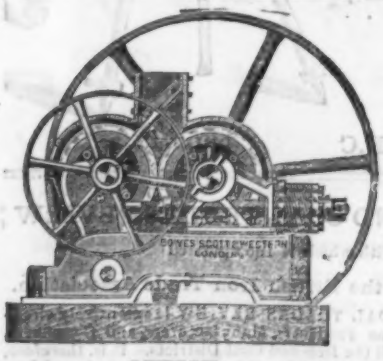

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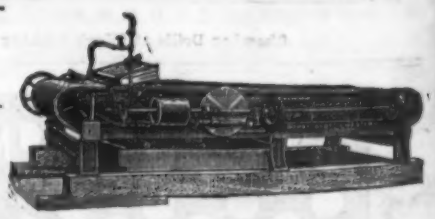

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